

2018 WILKES COUNTY COMMUNITY HEALTH NEEDS ASSESSMENT

Wilkes County Health Department,
Wake Forest Baptist Health Wilkes
Medical Center, and the Health
Foundation, Inc.

*Report to
NCDPH*

*March,
2019*

TABLE OF CONTENTS

Acknowledgments.....	5
Executive Summary	6
Vision Statement	6
Assessment Collaborators.....	6
Introduction	6
The Wilkes County Community.....	7
Wilkes County Health Outcomes	7
Wilkes County Populations at Risk for Poor Health Outcomes	9
Wilkes County Health Priorities	9
Next Steps.....	9
Introduction: The Community Health Assessment Process	10
Overview	10
Team Selection Process.....	10
Team Operational Process	11
Data Collection Process	11
Demographic, Economic and Sociodemographic Data Findings	14
County Description and History	14
Demographics	14
Economics.....	16
Income.....	16
Employment.....	16
Sociodemographics.....	17
Housing	17
Primary and Secondary Education	17
Schools and Enrollment.....	17
Educational Attainment.....	18
High School Drop-out Rate and Graduation Rate	18
Crime and Safety	18
Crime Rates	18
Juvenile Crime.....	19
Sexual Assault and Domestic Violence	19
Child Maltreatment	20
Environmental Data Findings	21
Air Quality Index	21
Toxic Chemical Releases.....	21

Drinking Water Systems.....	22
Solid Waste Disposal	23
Rabies	23
Health Data Findings.....	24
Using Health Data	24
Maternal and Infant Health	25
Pregnancy Rates	25
Overall Pregnancy Rate	25
Teen Pregnancy Rate.....	25
Pregnancy Risk Factors	26
High Parity and Short-Interval Births.....	26
Lack of Early Prenatal Care.....	26
Smoking during Pregnancy.....	26
Birth Outcomes	26
Low and Very Low Birth Weight Births.....	26
Infant Distress at Birth	27
Infant Mortality.....	27
Life Expectancy and Leading Causes of Death	27
Life Expectancy.....	27
Leading Causes of Death.....	28
Morbidity and Chronic Disease	32
Diabetes	32
Overweight and Obesity	32
Communicable Disease	33
Mental Health.....	33
Health Resources	35
Health Insurance	35
Health Care Providers	36
Health Care Facilities	36
Hospital.....	36
Health Department.....	37
Federally-Qualified Health Center	37
Emergency Medical Services	37
School Health	37
Long-Term Care Facilities.....	37
Home Care, Home Health and Hospice Services.....	38

Mental Health Services Providers and Service Facilities	38
Other Healthcare Resources	39
Disease Prevention and Health Promotion Resources	39
Community Concerns Summary	41
Community Health Survey	41
Stakeholder Survey	44
Wilkes County Progress toward Healthy NC 2020 Goals	46
Community Priorities	47
Priority Selection Process	47
Priorities	48
Obesity and Chronic Disease	48
Health Indicators	48
Specific Populations at Risk	49
Health Resources Available and/or Needed	49
Mental Health and Substance Abuse	50
Health Indicators	50
Specific Populations at Risk	51
Health Resources Available and/or Needed	52
Access to Care	52
Health Indicators	52
Specific Populations at Risk	53
Health Resources Available and/or Needed	54
Tobacco and Smoking	55
Health Indicators	55
Specific Populations at Risk	55
Health Resources Available and/or Needed	55
Next Steps	56
References	57
Appendices	61
Appendix 1: 2018 Wilkes County CHNA Advisory Team, Steering Committee and Collaborating Agencies	
Appendix 2: Consultant's 2018 Wilkes County CHNA Data Summary Presentation	
Appendix 3: 2018 Wilkes County CHNA Community Health Survey Instrument	
Appendix 4: 2018 Wilkes County Health Summit Participant Roster	

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ADVISORY TEAM	
Name	Agency
Ann Absher	Wilkes Health
Arlen Rash	Wake Forest Baptist Health Wilkes Medical Center
Barbara Overby	Wilkes Health
Barry Wald	Wake Forest Baptist Health Wilkes Medical Center
Heather Murphy	Health Foundation, Inc.
Holly Norman	Health Foundation, Inc.
Jared Belk	Wilkes Health
Jackie Johnson	Wilkes Health
Jennifer Wages	Health Foundation, Inc.
Rachel Willard	Wilkes Health
Susan Bachmeier	Wake Forest Baptist Health Wilkes Medical Center
Tammy Love	Wake Forest Baptist Health Wilkes Medical Center

Thank you also to our community for completing the survey or contributing information in other ways.

Independent public health consultants Sheila S. Pfaender and Annika Pfaender-Purvis provided secondary data collection and analysis, primary data analysis, and report development services for a comprehensive Community Health Needs Assessment which is the source document from which this report was derived.

The community health assessment process, source document, and final report were made possible by financial contributions from Wake Forest Baptist Health Wilkes Medical Center, the Health Foundation, Inc., and Wilkes County Health Department.

EXECUTIVE SUMMARY

VISION STATEMENT

To assess where we are, to know where we need to be, and to meet the needs of our community.

ASSESSMENT COLLABORATORS

Collaboration between Wilkes County Health Department, Wake Forest Baptist Health Wilkes Medical Center, the Health Foundation Inc., and other local partners made this assessment possible. Representatives from many agencies spent numerous hours attending meetings, promoting and distributing the community health survey, participating in stakeholder interviews, and attending consultant presentations. Agencies collaborating in the 2018 CHNA process in Wilkes County include:

Collaborating Agencies	Number of Partners
Public Health Agency	2
Hospital/Health Care-related agencies	4
Behavioral Health services (including substance abuse)	4
Dental Health Providers	1
EMS Provider	1
Educational (including public school system)	5
Public Housing Authority	2
Faith Organizations	1
Community Organization (advocacy, senior center, food banks, transportation etc.)	10
Social Services	1
Local government	1
Food banks	2
NC Cooperative Extension	1
Public Safety	1
Public Library	1
Chamber of Commerce	1

INTRODUCTION

The primary partners in the Wilkes Community Health Needs Assessment (CHNA) project were the Wilkes County Health Department, Wake Forest Baptist Health Wilkes Medical Center and the Health Foundation, Inc. of Wilkes County, with the health department supplying staff to coordinate the project. The primary partners contracted with an independent consultant for assistance in conducting the 2018 CHNA. The team’s work culminated in a comprehensive CHNA report that was excerpted to create this report.

THE WILKES COUNTY COMMUNITY

Wilkes County is a primarily rural county located in the foothills region of west-central NC. Geographically, it is the third largest county in the state. Most services are focused around the town of Wilkesboro (the county seat) and North Wilkesboro (the largest town in the county). The Wilkes County population is growing, but at a predicted rate far slower than the state as a whole (~5% vs. ~11%, respectively) in the decade 2020-2030.

Wilkes County is not especially racially and ethnically diverse. In 2016, only 4.3% of the population was African American, and 5.9% was of Hispanic origin, compared to NC averages of 21.5% and 8.9%, respectively. One noteworthy demographic aspect of the Wilkes County population is its age. In 2010, the median age in the county was 44.1 years, six years “older” than the median age for NC. The population of citizens age 65 and older is projected to grow by 65% by 2030, at which point there will be an estimated 19,392 persons in that age group in the county.

Despite an economy that is improving nationally and locally, at least in terms of unemployment, poverty remains significant in Wilkes County, especially among African Americans and children. The overall 100% poverty rate in Wilkes County in 2012-2016 was 21.1%, 26% higher than in NC. However, the poverty rate among African Americans in the county in the same period was 26.1% and the rate among Hispanic/Latinos was 39.2%, compared to 19.3% among white residents. Among children in the county under the age of 5, the poverty rate for the same period was 33.4%, 48% higher than the overall rate. Poverty in Wilkes County may relate to the high fraction of the workforce employed in job sectors (especially the nearly 13% employed in retail trade) paying relatively low wages and offering few benefits.

In 2016, 18.5% of the Wilkes County population between ages 19-64 lacked health insurance of any kind. Children ages 0-18 fared considerably better, with only 4.9% uninsured.

WILKES COUNTY HEALTH OUTCOMES

According to results from the 2018 Wilkes County Community Health Survey, 9% of respondents reported being in “excellent” health, and 35% reported “very good” health. Almost 14% deemed themselves in “poor” or “fair” health.

Life expectancy in Wilkes County has improved. For person born in 2014-2016, the overall life expectancy was 76.1 years, compared to 75.7 years in 1990-1992. Life expectancy in the African American community, despite continued poverty and poor health outcomes, improved from 69.6 years in 1990-1992 to 75.4 years in 2014-2016. While life expectancy for males rose from 72.5 to 73.7 over the period described, gender-stratified mortality data shows that men in Wilkes County have long had higher mortality rates than women for *all* leading causes of death except Alzheimer’s disease.

Comparison of Wilkes County health data over the past twelve years has identified significant improvement in certain health parameters, such as the 15 leading causes of death. Between 2001-2005 and 2012-2016, mortality rates in the county have declined overall for total cancer, heart disease, stroke, Alzheimer’s disease, unintentional motor vehicle injuries, and suicide. However, mortality rates *increased* over the same period for chronic lower respiratory disease, unintentional injuries, pneumonia and influenza, diabetes, kidney diseases, septicemia, liver

disease, homicide, and AIDS. Among the leading causes of death, heart disease is disproportionately fatal in the Wilkes County African American community, for whom the most recent mortality rate (2012-2016) was 51% higher than the comparable mortality rate for whites. Given NC trends, it is possible that African Americans in Wilkes County also suffer disproportionate mortality from other causes of death (especially diabetes), but due to below-threshold numbers of events in Wilkes County, the NC State Center for Health Statistics does not display those mortality rates.

Lifestyle factors and behaviors are likely contributors to several of the chronic diseases for which mortality rates in Wilkes County have been increasing, for example chronic lower respiratory disease (CLRD) and diabetes.

Smoking is a known contributor to CLRD. We have no definitive measured data on the prevalence of smoking in the overall Wilkes County population. According to results from the 2018 Wilkes County Community Health Survey, 13% of the respondents reported being current smokers. (It should be noted that the survey sample was predominately female and well-educated). Data on smoking among expectant mothers shows that almost 19% of pregnant women in Wilkes County in 2016 were smokers, a frequency almost double the state figure.

Among lifestyle factors contributing to diabetes prevalence and mortality, overweight and obesity are perhaps the most important. According to the CDC the prevalence of diagnosed adult obesity in Wilkes County in 2013 was 26.5% and had averaged 28% from 2006 through 2013. In the 2018 Wilkes County Community Health Survey, 36% of respondents self-reported having received a medical diagnosis of overweight/obesity and 28% reported that they do not participate in any physical activity or exercise. On that same survey, respondents identified recreational facilities and better/healthier food choices among the services needing improvement in Wilkes County. "Unhealthy lifestyle" was the second most commonly selected (by 45% of respondents) unhealthy behavior impacting quality of life in Wilkes County; 23% of respondents selected "smoking/tobacco use" among the most critical unhealthy behaviors.

Between 2001-2005 and 2012-2016, site-specific cancer mortality rates in Wilkes County decreased overall for lung, breast, prostate, and colorectal cancers, and increased only for pancreas cancer. Incidence rates increased overall for lung cancer while incidence rates for the other major site-specific cancers decreased. Since community cancer screening efforts sometimes result in the identification of cancers that may not otherwise have been discovered, it will be important to identify if screening activities help account for these increases in cancer incidence.

Some parameters of maternal and infant health in Wilkes County have improved in recent years. For example, the pregnancy rate for teens (girls ages 15 through 19) fell by 11% between 2014 and 2016. (There were insufficient numbers of teen pregnancies among African Americans to calculate stable rates.) The frequency of smoking during pregnancy decreased from 19.7% in 2014 to 18.8% in 2016 and remains at a level almost twice the frequency statewide.

Unfortunately, the infant mortality rate in Wilkes County continued to worsen, increasing each year from 7.4 in 2005-2009 to 9.4 in 2011-2015; only slight improvement occurred in 2012-2016. Infant mortality rates among African Americans in that period were technically unstable but were more than double the comparable rates for white, non-Hispanic infants. The proportion of births that were low weight or very low weight have also increased in recent periods, and the rates among African Americans remain higher compared to other racially stratified groups.

WILKES COUNTY POPULATIONS AT RISK FOR POOR HEALTH OUTCOMES

The poor, the uninsured, minorities, and males in Wilkes County are at greater risk for poor health outcomes than their wealthy, insured, white, and female counterparts. Other vulnerable populations include people living in the rural parts of the county, especially those with limited transportation options. At-risk populations associated specifically with the priority health problems selected in Wilkes County are discussed separately.

WILKES COUNTY HEALTH PRIORITIES

The Wilkes County CHNA team used the results of extensive secondary data collection and analysis, a large community health survey, and a stakeholder survey to establish community health priorities. The contracted consultant presented the results from all three information gathering activities at a meeting of a large group of stakeholders, after which those present voted individually on their preferred, evidence-based priorities. The CHNA team tabulated the results.

The following were established as Wilkes County's health priorities for the next three years (2019-2022):

- Obesity and Chronic Disease
- Mental Health and Substance Abuse
- Access to Care
- Tobacco and Smoking

NEXT STEPS

Following the submission of this report, Wilkes County Health Department, Wilkes Medical Center, and the Health Foundation, Inc. will hold several listening sessions or conversation cafes. The conversation cafes will serve a dual purpose in which community partners, members, and stakeholders receive information about the CHNA, while being engaged to identify strategies and solutions for addressing the four health priorities. Staff will provide a brief overview of the results, with an emphasis on the four priorities listed above and participants will be able to suggest enhancement of current programs, new evidenced based strategies, and prospective partnerships.

The results of the meetings will be consolidated into a set of priority recommendations to help the health department construct their community health improvement plan (CHIP). The health department will continue to analyze the data and context of each health priority to ensure a proper selection of improvement activities. Once the CHIP has been finalized, it will be distributed to existing coalitions for input and buy-in for each health priority. Once implementation of the CHIP has begun, the group will continue to monitor and collect health data, and adjust the plan as needed.

INTRODUCTION: THE COMMUNITY HEALTH ASSESSMENT PROCESS

OVERVIEW

Local public health agencies in North Carolina (NC) are required to conduct a Comprehensive Community Health Assessment (CHA) at least once every three or four years. The CHA is a requirement in the consolidated agreement between the NC Division of Public Health (NCDPH) and the local public health agency. Furthermore, a CHA is required for local public health department accreditation through the NC Local Health Department Accreditation Board (G.S. § 130A-34.1). Not-for profit hospitals are required by the US IRS to conduct a similar Community Health Needs Assessment (CHNA) every three years, so many hospitals partner with local public health agencies to jointly complete the assessment task, which if the case in Wilkes County in 2018. The partners agreed to refer to the assessment in Wilkes County as the 2018 CHNA.

The primary partners in the 2018 Wilkes County CHNA project were the Wilkes County Health Department, Wake Forest Baptist Health Wilkes Medical Center, and the Health Foundation, Inc. of Wilkes County, with the health department supplying staff to coordinate the project. The primary partners contracted with an independent consultant for assistance in conducting the 2018 assessment. The team's work culminated in a comprehensive CHNA report that was excerpted to create this report.

The community health assessment, which is both a process and a document, investigates and describes the current health status of the community, what has changed since the last assessment, and what still needs to change to improve the health of the community. The *process* involves the collection and analysis of a large range of data, including demographic, socioeconomic and health statistics, environmental data, and professional and public opinion. The *document* is a summary of all the available evidence and is a useful data resource until the next assessment. The completed assessment serves as the basis for prioritizing the community's health needs and culminates in planning to meet those needs.

The CHNA team coordinator worked with the consultant to develop a multi-phase plan for conducting the assessment. The phases included: (1) a secondary data research phase to identify, collect and analyze secondary demographic, socioeconomic, health, hospital and environmental data; (2) a primary data research phase to analyze data collected via an on-line community survey and an on-line stakeholder survey; (3) a data synthesis and analysis phase; (4) a period of data reporting and discussion among the project partners; and (5) a prioritization and decision-making phase. Upon completion of this work, the assessment partners and the community have the tools they need to develop plans and activities that will improve the health and well-being of the people living in Wilkes County.

TEAM SELECTION PROCESS

Health department staff recruited members for an Advisory Team to guide the CHNA process. The recruited group of twelve members included representatives from the three primary partners in the CHNA process: the Health Department, the Health Foundation, and Wake Forest Baptist Health Wilkes Medical Center.

A “steering committee” was also established and this group included a broader range of community organizations. They brought a wealth of knowledge and expertise on a variety of issues and populations in the county, and the broad range of backgrounds ensured objectivity throughout the prioritization process, which was this group’s key responsibility.

The Advisory Team (listed previously in the Acknowledgements) met three times between December 2017 and October 2018 to review strategies for conducting the CHNA, review the community opinion survey, stay informed of the process, provide feedback, and help in selecting the health priorities. The Advisory Team provided oversight and was considered the core group who made the decisions and provided direction for the CHNA process. A roster of the Advisory Team, a roster of the Steering Committee members, and a list of collaborating agencies are appended to this document (Appendix 1).

TEAM OPERATIONAL PROCESS

The initial Advisory Team meeting/orientation was held in December 2017. CHNA Advisory Team members were provided a brief history of the CHA/CHNA in Wilkes County, oriented about the phases of the process along with a timeline for each phase, informed about the changes in requirements since the 2015 CHNA, and made aware of the expectations of team members. At the conclusion of the meeting, team members began work on developing the community health survey and stakeholder survey. Team meetings were held as needed with communication in the interim via email and phone. The Advisory Team, as well as the steering committee, worked to promote the on-line community health survey from April until September.

By September 2018, 548 community surveys had been completed and the Public Health Consultant and her team analyzed the survey results. The consultant also reviewed results from the stakeholder surveys compiled by health department staff. In October 2018 the consultant presented a summary of secondary data findings, and results from the community survey and stakeholder survey to an audience of community stakeholders, project partners and collaborators, who at that *Health Summit* used the information presented, supplemented by their personal and organizational knowledge, to preliminarily prioritize health issues in Wilkes County. Afterwards, the results of the prioritization activity were tabulated and discussed by the CHNA Advisory Team to establish health priorities for the next three years.

DATA COLLECTION PROCESS

Most data referred to in this document were derived, unless otherwise specifically noted, from the consultant’s comprehensive report, *2018 Wilkes County Community Health Needs Assessment: Comprehensive Secondary Data, Community Health Survey and Stakeholder Survey Report* which is available on the Wilkes County Health Department website www.wilkeshealth.com.

The consultant’s primary tasks were to identify, collect and analyze secondary data, and to analyze the results of primary data collection activities conducted by the Wilkes CHNA partners.

Because in any community health assessment it is instructive to relate local data to similar data in other jurisdictions, Wilkes County data is compared to like data describing the state of NC, as well as data from Surry County, NC, which was selected from the state-approved “peer county” list. In some cases, Wilkes County data is compared to US-level data or other standardized measures. Where appropriate, trend data was used to show changes in indicators over time, at

least since the previous Wilkes County CHNA three years ago, but sometimes further back than that. Throughout the data collection process attention was given to identifying at-risk and vulnerable populations when the data was stratifiable according to age, gender or race/ethnicity.

In order to learn about the specific factors affecting the health and quality of life of Wilkes County residents, the consultant tapped numerous readily available secondary data sources. For data on Wilkes County demographic, economic and social characteristics sources included: the US Census Bureau; Log Into North Carolina (LINC); NC Office of State Budget and Management; NC Department of Commerce; Employment Security Commission of NC; NC Department of Public Instruction; NC Department of Justice; NC Department of Juvenile Justice; NC Department of Administration; NC Department of Transportation; NC Division of Medical Assistance; NC Division of Child Development; NC State Board of Elections; NC Division of Health Services Regulation; and the Cecil B. Sheps Center for Health Services Research. The consultant made every effort to obtain the most current data available at the time.

The main source of secondary health data was the NC State Center for Health Statistics, including its County Health Data Books, Vital Statistics, and Cancer Registry. Other health data sources included: US Centers for Disease Control and Prevention; NCDPH Epidemiology Section; NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services; National Center for Health Statistics; Healthy People 2020; and the NCDPH Oral Health Section, among other *public domain* sources. Other important *local* health data sources included the Wilkes County Health Department and the Wilkes County Department of Social Services.

Secondary environmental data were gathered from public domain sources including the US Environmental Protection Agency, NC Department of Environment and Natural Resources Divisions of Air Quality and Waste Management, and the Section of Environmental Health in NCDPH.

The hospital in Wilkes County—Wake Forest Baptist Health Wilkes Medical Center—provided de-identified data detailing demographic characteristics and ICD- and DRG-coded diagnoses of the patient population discharged in 2015, 2016 and 2017 from the emergency department and from inpatient hospitalization. The consultant worked with the hospitals to assure that the data provided preserved the confidentiality of individual patients. Limited hospital data is summarized in this report; most hospital data appears in detail in the comprehensive 2018 Wilkes County CHNA Report.

It should be noted that as is typical in all time-limited activities such as community health assessment, all secondary data were mined at points in time in the recent past and may not represent present conditions. Numbers, entity names, program titles, etc. that appear in the consultant's report may no longer be current.

The community health survey was conducted primarily via Survey Monkey™ but was supplemented by paper surveys distributed to some population groups that could not easily access the Internet. In the fall of 2018, a total of 548 surveys were analyzed by the Public Health Consultant and her team. Since the survey was collected via convenience sampling, some groups were over- or under-represented. For example, the survey sample was overwhelming female, more highly-educated, and wealthier than the general population. Black residents were slightly over-represented and Hispanic residents were adequately represented. Survey results are interspersed throughout this report, and several sections are covered in some detail in the chapter, *Community Concerns*.

The Wilkes CHNA team also conducted Stakeholder Surveys, the results of which were provided to the consultant. The on-line stakeholder survey drew a total of 34 responses, all of which were from people who represented health and human service agencies and organizations in Wilkes County.

The consultant's comprehensive report represents a topical synthesis of all the secondary data researched in connection with the 2018 Wilkes County CHNA project, as well as data collected via the 2018 Wilkes County Community Health Survey and Stakeholder Survey. Her report was intended from the outset to serve as the master data resource for guiding community deliberations about the most important health issues in Wilkes County. That comprehensive report is available on the Wilkes County Health Department website at: www.wilkeshealth.com. The consultant's PowerPoint presentation, containing an abridged summary of the secondary data, community survey and stakeholder survey results is attached as Appendix 2: *Consultant's Presentation*. Four Data Workbooks used to support the comprehensive report—as well as to support the discussion in this document—are being submitted separately to accompany this report.

DEMOGRAPHIC, ECONOMIC AND SOCIODEMOGRAPHIC DATA FINDINGS

COUNTY DESCRIPTION AND HISTORY

Wilkes County is a large, primarily rural county located in the foothills region of northwestern NC. It is bordered to the west by Ashe and Watauga counties, to the north by Alleghany and Surry counties, to the east by Yadkin County, and to the south by Caldwell, Alexander and Iredell counties. Wilkes County is divided geopolitically into 21 townships. North Wilkesboro is the most populated city in the county and the nearby town of Wilkesboro is the county seat. Most Wilkes County services are located in these two communities.

Wilkes County encompasses a land area of 760 square miles with 149 miles of paved roads, and 24% of Wilkes County residents live within 10 miles of a four-lane highway. Major highways include Interstate Highways 77 and 40 and US Highway 421. Several NC highways spread through the county from a central point in Wilkesboro. The Blue Ridge Parkway lies along the northwestern border of the county. US 421 and Interstate 40 provide access to the Piedmont Triad International Airport located 80 miles to the east in Greensboro. Interstate 77 provides access to the Charlotte International Airport located 80 miles to the south. Local air access is provided by the Wilkes County Airport. Wilkes County is not a major stop on any passenger railway system (the closest stop is Winston-Salem) and there are no interstate bus lines within the county that offer passenger services (1).

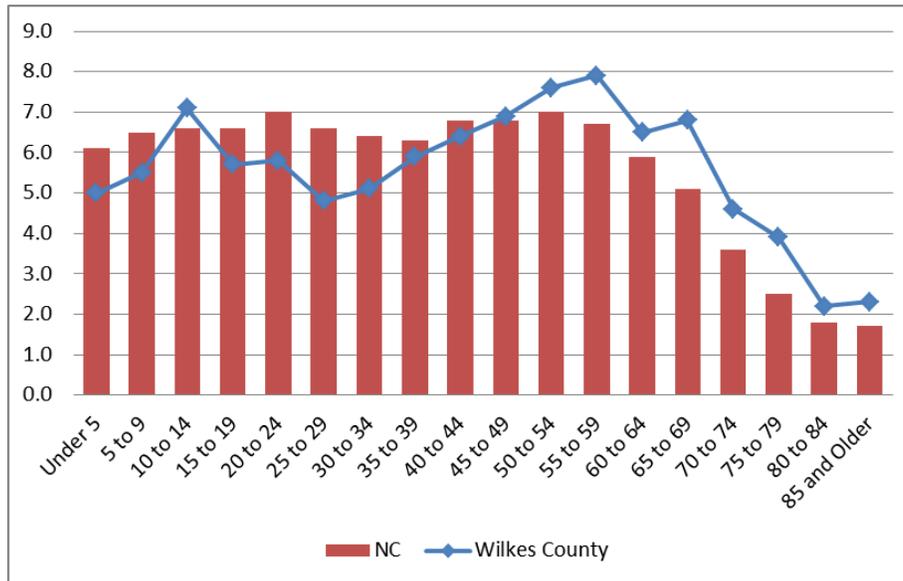
Wilkes County is home to several historic landmarks and cultural sites. The Wilkes Symphony Orchestra, Wilkes Playmakers, the Whippoorwill Academy and Village, and the Wilkes Art Gallery generate numerous visitors to the area. Wilkes County hosts the MerleFest, an acclaimed music festival founded by Doc Watson, and other events and activities such as the Wilkes Agricultural Fair, the Brushy Mountain Apple Festival, and the North Wilkesboro Fireworks Celebration. Several natural parks and attractions are within Wilkes County as well. Hikers, boaters, and fishermen visit the W. Kerr Scott Dam and Reservoir, named after William Kerr Scott (1896-1958) a past N.C. Governor and U.S. Senator who helped assist in the creation of the dam. Other notable physical features of Wilkes County include Stone Mountain Park and the Rendezvous Mountain Educational State Forest.

DEMOGRAPHICS

According to the US Census Bureau data, the estimated population of Wilkes County was 68,888 in 2016. The Wilkes County population is far less diverse than the NC population overall: 91.2% white, 4.3% African American, and 5.9% Hispanic/Latino; the comparable percentages for NC are 69.2% white, 21.5% African American, and 8.9% Hispanic/Latino (2).

Perhaps the most noteworthy aspect of the Wilkes County population is its age. In 2016 the median age in the county was 44.1 years, approximately six years “older” than the median age of the population of NC as a whole. Furthermore, the graph of population distributions for Wilkes County and NC shown below demonstrates how the Wilkes County population has higher percentages of “older” residents, and lower percentages of “younger” residents--especially the 15-39-year-old age group—than NC (3).

Population Distribution, by Age Group



Source: Table S0101: Age and Sex (for percentages). 2016 ACS 5-year estimates. U.S. Census Bureau, American FactFinder website: <http://factfinder2.census.gov>.

The “gap” in the number of persons of younger working age might indicate that employment opportunities in Wilkes County are not sufficient to attract and keep young workers, since much of the “missing” age group is beyond college age. Its larger-than-NC average proportions of older residents should be of concern to the county, since this is a population group that tends to utilize health and human services at higher rates than younger age groups.

Exacerbating current concern about older segments of the population is projected growth in the population over the age of 65. According to figures from the NC Office of State Budget and Management, the population of persons age 65 and older in Wilkes County is projected to grow from 13,672 in 2016 to 19,392 by 2030, an increase of 65%. More specifically, between 2010 and 2030 the Wilkes County population age 65-74 is projected to grow by 50%, the population age 75-84 by 87%, and the population over age 85 by 76% (4).

One concern in meeting the future, and perhaps even the current needs, of its elderly population is the relative dearth of beds in long-term care facilities in Wilkes County. As of the May 2018 listing of NC-licensed long-term beds by the NC Division of Health Services Regulation, there were 261 beds in Adult Care Homes/Homes for the Aged, zero beds in Family Care Homes, and 407 beds in Nursing Homes and Homes for the Aged that can provide skilled nursing, for a subtotal of 668 beds (5). If the current number of long-term beds does not change, the ratio of beds to population over the age of 65 will decrease from 1:20 to 1:29.

An alternative to institutional care preferred by many disabled and senior citizens is to remain at home and use community in-home health and/or home aide services. As of May 2018, there were 14 NC-licensed home care, home health and hospice services in Wilkes County (6). The projected growth of the elderly population in Wilkes County points to the importance of close investigation of the adequacy of current resources for this population group, and of new facilities and services that might be necessary to meet future needs.

ECONOMICS

The NC Department of Commerce annually ranks the state's 100 counties based on economic well-being and assigns a Tier Designation, where the 40 most distressed counties are Tier 1, the next 40 are Tier 2, and the 20 least distressed are Tier 3. For 2019, Wilkes County was assigned Tier 2 Designation (7). With this Tier Designation, Wilkes County is *not* eligible to offer the same economic incentives to prospective businesses as its Tier 1 neighbor Surry County.

Income

Regardless of income category designation, incomes in Wilkes County fell below comparable state figures in 2016. Estimated 2016 *per capita personal income* in Wilkes County was \$6,634 lower than the comparable state average, and the 2016 *median household income* in the county was \$13,410 lower than the comparable state average. Estimated 2016 *median family income* in Wilkes County was \$13,207 lower than the comparable state average (8). These differences are due partly to the proportion of low-wage earning persons in Wilkes County, as described below.

Employment

In 2016, the employment sector in Wilkes County that employed the largest percentage of the workforce (20%) was Manufacturing, with an average weekly wage of \$702. The second-largest proportion of the workforce was employed in the Retail Trade sector (13%) at an average weekly wage of \$479. Note that the retail trade sector includes many part-time workers, and many whose employers do not provide health benefits. In 2016, for all employment sectors the average weekly wage per worker in Wilkes County was \$677, \$357 less than the average weekly wage per worker statewide (9).

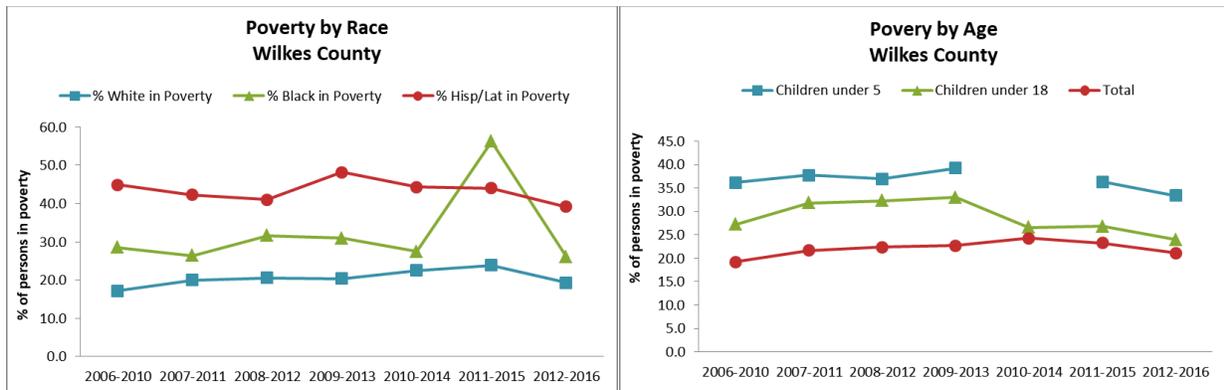
As elsewhere in NC, the unemployment rate in Wilkes County (calculated by dividing the number of unemployed persons in the county by the number of people in the county's civilian labor force) accelerated abruptly between 2008 and 2009, with the onset of the nation-wide economic recession. Beginning in 2010 unemployment in NC began to decrease, but in Wilkes County unemployment continued to accelerate, beginning to fall only in 2011. In 2017, the unemployment rate had fallen to 4.3% in Wilkes County and 4.6% statewide (10).

In Wilkes County, Surry County and the state of NC, overall annual poverty rates (100% level) have not improved on pace with the unemployment figures, though rates have fallen recently in all three jurisdictions. The current (2012-2016) Wilkes County poverty rate, 21.1%, is the lowest since 2008-2012 though it still exceeds the comparable rates in Surry County (17.9%) and NC (16.8%) (11).

As illustrated in the left-hand chart below, Hispanics and African Americans endure poverty at higher rates than their white counterparts. Throughout the periods 2006-2010 to 2012-2016 the poverty rate among Hispanics in Wilkes County was approximately double the rate among white residents. The poverty rate among African Americans fluctuated from between 13% and 141% higher than the comparable white poverty rate in the county (12).

Another group that suffers disproportionately from poverty is children. As illustrated in the right-hand chart below, youth under the age of 18, and especially those under the age of 5, have higher poverty rates than the overall population. In 2011-15 and 2012-2016 in Wilkes County, the proportion of related children under age 18 living at or below the 100% poverty level was

approximately 39% higher than the total (overall) poverty rate, and the proportion of children under age 5 living under the same circumstances was approximately 57% higher than the total poverty rate (13).



Source: Table S1701: Poverty Status in the Past 12 Months. American Community Survey 5-Year Estimates [years as noted]. US Census Bureau, American Fact Finder. <http://factfinder2.census.gov>

Poverty can diminish all aspects of quality of life including health. The population in poverty is even more at risk for poor health outcomes if its members do not have health insurance. The uninsured population in Wilkes County will be discussed more fully in the Health Resources section of this report.

SOCIODEMOGRAPHICS

Housing

Housing is often the largest expense for a household. A benchmark sometimes used to compare housing expense among communities is to cite the proportion of household units spending 30% or more of total household income on housing. In 2012-2016, 51% of rental units and 30% of mortgaged units in Wilkes County were paying 30% or more on housing, compared to figures of 49% and 28%, respectively, statewide. The higher proportions of residents paying 30% or more on housing in the county occurred even though in the same period the estimated median monthly mortgage cost in Wilkes County was \$253 lower than the state average of \$1,243, and the estimated gross monthly rent in the county was \$223 lower than the state average of \$816 (13).

In 2012-2016, approximately 27% of all housing units in Wilkes County were classified as mobile homes, a figure 51% higher than the NC average (14).

Primary and Secondary Education

Schools and Enrollment

As of the 2017-2018 school year, there were 23 public schools in the Wilkes County school district, including one charter school (14). There are also three private schools in the county (15).

According to NC Department of Public Instruction figures, enrollment in Wilkes County *non-charter* public schools decreased annually between SY2013-2014 and SY2016-17 (16).

Educational Attainment

As of a 2012-2016 US Census Bureau estimate, Wilkes County had significantly lower percentages of both high school graduates (77%) and residents with a bachelor's degree or higher (14%) than NC as a whole (86% and 29%, respectively) (17).

According to SY2016-17 End of Grade (EOG) Test results, eighth graders in Wilkes County public schools demonstrated grade-appropriate proficiency in reading and math at *lower* percentages than students statewide; test scores for 3rd graders were at or above state proficiency levels. In SY2016-17, the average total SAT score for students in the Wilkes County public schools (1083) was slightly higher than the average total SAT score for students statewide (1074), although the participation rate of 20% in Wilkes County was half the rate statewide (20).

High School Drop-out Rate and Graduation Rate

According to the NC Department of Public Instruction, a "drop-out" is any student who leaves school for any reason before graduation or completion of a program of studies without transferring to another elementary or secondary school. Specific to high school students in regular (non-charter) public schools in Wilkes County, the drop-out rate is variable on a yearly basis but was higher than the comparable NC rate in the three most recent school years available (SY14-15, SY15-16 and SY16-17) (18).

Some educators prefer to use graduation rate rather than drop-rate when discussing the proportion of students who finish/do not finish school, since it emphasizes success rather than failure. The four-year cohort graduation rates for subpopulations of 9th graders in Wilkes County entering public high school in SY2013-14 and graduating in SY2016-17 are shown in the following table, which illustrates that the county graduation rates in all categories exceeded comparable state rates.

**Four-Year Cohort High School Graduation Rate
9th Graders Entering 2013-14 and Graduating in 2016-17 or Earlier**

School System	All Students			Male			Female			Economically Disadvantaged		
	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating
Wilkes County Schools	737	655	88.9	367	321	87.5	370	334	90.3	221	187	84.6
Surry County Schools	659	597	90.6	334	291	87.1	325	306	94.2	298	261	87.6
State of NC	115,730	110,164	86.5	58,885	49,167	83.5	56,844	50,997	89.7	46,465	38,029	81.8

Source: Public Schools of North Carolina, Cohort Graduation Rate. *4-Year Cohort Graduation Rate Report, 2013-14 Entering 9th Graders Graduating in 2016-17 or Earlier*. <http://www.ncpublicschools.org/accountability/reporting/cohortgradrate>

Crime and Safety

Crime Rates

The NC Department of Justice catalogs data on *index crime*. Index crime is composed of *violent crime* and *property crime*. Violent crime includes murder, forcible rape, robbery, and aggravated assault; property crime includes burglary, larceny, arson, and motor vehicle theft. The overall index crime rate in Wilkes County fluctuated between 2006 and 2011 and then decreased steadily through 2016. The index crime rate in Wilkes County was lower than the comparable state rate throughout the period (19).

Violent crime can be subdivided into the following categories: *murder, rape, robbery* (larceny by the threat of violence); and *aggravated assault* (a physical attack on another person which results in serious bodily harm and/or is made with a deadly or dangerous weapon such as a gun, knife, sword, ax or blunt instrument). The violent crime rate in Wilkes County, after decreasing each year since 2011, increased slightly in 2016, though it was lower than the comparable state rate over the entire 2006-2016 period. The largest component of Wilkes County index crime was property crime, rates for which also were consistently lower than the comparable rates for the state as a whole. Property crime can be subdivided into *burglary* (unlawful breaking and entering into the premises of another with the intent to commit a felony); *larceny* (the theft of property without use of force); and *motor vehicle* theft (the theft or attempted theft of a motor vehicle). In Wilkes County, the predominant violent crime reported in every year cited was aggravated assault, and the predominant property crime reported in every year cited was larceny (20).

Besides index crime, a series of other criminal activities occurs in Wilkes County. For example, as of May 2, 2018 there were 163 non-incarcerated registered sex offenders in Wilkes County (21). According to the NC Governor's Crime Commission, in 2016 Wilkes County is classified as an "at risk" county, meaning it has no identified gangs, but the county is adjacent to counties with identified gangs, on an interstate corridor, or have a significant metropolitan population (22). And finally, according to the NC State Bureau of Investigation, there were 146 methamphetamine drug lab busts in Wilkes County during the period from 2005 through 2017; there were three reported busts in 2017 (23).

Juvenile Crime

The following definitions will be useful in understanding the subsequent data and discussion.

Complaint: A formal allegation that a juvenile committed an offense, which will be reviewed by a counselor who decides whether to approve or not approve the complaint. If approved, it will be heard in juvenile court.

Undisciplined: Describes a juvenile between the ages of six and 16, who is unlawfully absent from school, or regularly disobedient and beyond disciplinary control of parent/guardian or is regularly found where it is unlawful for juveniles to be or has run away from home for more than 24 hours. It also includes 16-17-year olds who have done any of the above except being absent from school.

Delinquent: Describes a juvenile between the ages of six and not yet 16 who commits an offense that would be a crime under state or local law if committed by an adult.

The number of complaints for *undisciplined* youth in Wilkes County is variable over time and decreased from 42 in 2016 to 36 in 2017. The number of complaints of *delinquent* youth in Wilkes County is similarly changeable but increased from 179 in 2016 to 259 in 2017 (24). It is unclear whether this pattern reflects a real improvement of behavior among youth or a change in the reaction of complainants regarding what behaviors they think they are seeing.

Sexual Assault and Domestic Violence

The Domestic Violence Commission of the NC Council for Women publishes data pertaining to both sexual assault and domestic violence, provided by local agencies that receive funding from them. Between FY2004-2005 through FY2015-16, the annual number of clients filing complaints of sexual assault was variable on an annual basis but has not approached the 2010 high of 66; statewide, the number has decreased each year since FY2013-14. Over that same

period, the number of individuals filing complaints of domestic violence was similarly changeable, fluctuating from a high of 869 in FY2012-13 to a low of 446 in FY2015-16 (25).

In FY2016-17, 18 individuals in Wilkes County filed complaints of sexual assault (the most common type of assault was adult rape) and 225 filed complaints of domestic violence (25). There were 10 domestic violence-related homicides in Wilkes County over the period 2008-2016 (26).

Child Maltreatment

The responsibility for identifying and reporting cases of child abuse, neglect, and exploitation falls to the child protective services program within a county's department of social services. Usually, such a unit will have enough staff to handle intake of all reports. However, an agency's ability to investigate and monitor reported cases may vary from year to year, depending on the number of properly trained staff available to it; hence, follow-up on reports may vary independently of the number of reports.

Between FY2004-2005 and FY2016-2017, the total number of findings of child abuse, neglect or dependency in Wilkes County fluctuated without a clear pattern, averaging 60 substantiated cases per year, with the most common type of finding being neglect (27).

ENVIRONMENTAL DATA FINDINGS

AIR QUALITY INDEX

The US Environmental Protection Agency (EPA) maintains air quality monitoring stations throughout the country to continuously measure the air pollutants that most affect the health and wellbeing of the public: carbon monoxide, nitrous oxide, sulfates, ozone and particulate matter. These stations tend to be in populous areas or along highway routes that carry significant traffic loads, but none are in either Wilkes or Surry County, so there is no Air Quality Index (AQI) data for these locales (28).

Toxic Chemical Releases

The US Toxic Releases Inventory (TRI) program is the tool the EPA uses to track industrial releases of toxic chemicals to land, air and water. Approximately 20,000 industrial facilities are required to report estimates of their environmental releases and waste generation annually to the TRI program office. Note that these reports do *not* cover all toxic chemicals, and they omit pollution from motor vehicles and small businesses (29).

According to the 2017 TRI Annual Summary for NC, Wilkes County had the 26th highest level of TRI releases among the 85 reporting counties in NC reporting in that year. The primary releasing industry in Wilkes County was wood products production, and the primary releasing facilities were Louisiana-Pacific Corporation in Roaring River and Jeld-Wen Composites in North Wilkesboro (30). The primary releases at these facilities are listed in the table below.

Toxic Release Inventory (TRI) Summary, 2017

Location	Total On- and Off-Site Disposal or Other Releases, In Pounds	County Rank (of 85 reporting) for Total Releases	Compounds Released in Greatest Quantity	Quantity Released, In Pounds	Facilities Releasing Greatest Amount of Compound (Amount, In Pounds)	Primary Nature of Release	Facility Location		
Wilkes County	406,470	26	Methanol	162,266	Louisiana-Pacific Corp. (162,266)	Total On-site Disposal or Other Release	North Wilkesboro		
			Zinc Compounds	69,796	Louisiana-Pacific Corp. (69,796)	Total On-site Disposal or Other Release	North Wilkesboro		
			Phenol	45,900	Louisiana-Pacific Corp. (45,900)	Total On-site Disposal or Other Release	North Wilkesboro		
			Styrene	37,610	JELD-WEN Composites (37,610)	Total On-site and Off-Site Disposal or Other Release	North Wilkesboro		
			Formaldehyde	34,669	Louisiana-Pacific Corp. (34,669)	Total On-site Disposal or Other Release	North Wilkesboro		
			Acetaldehyde	27,802	Louisiana-Pacific Corp. (27,802)	Total On-site Disposal or Other Release	North Wilkesboro		
			Propionaldehyde	26,975	Louisiana-Pacific Corp. (26,975)	Total On-site Disposal or Other Release	North Wilkesboro		
			Ammonia	3,551	Louisiana-Pacific Corp. (2,159)	Total On-site Disposal or Other Release	North Wilkesboro		
							Tyson Farms, Inc (1,392)	Total On-site Disposal or Other Release	Wilkesboro
			Lead Compounds	351	Louisiana-Pacific Corp. (351)	Total On-site Disposal or Other Release	North Wilkesboro		
			Peracetic Acid	250	Tyson Farms, Inc. (250)	Total On-site Disposal or Other Release	Wilkesboro		
			Lead	173	Gardner Glass Products Inc (173)	Total Off-site Disposal or Other Release	North Wilkesboro		
			NC Total	52,282,279					
NC County Average	522,823								

Source: TRI Release Reports: Chemical Reports, 2017. US EPA TRI Explorer, Release Reports, Chemical Reports website: http://iaspub.epa.gov/triexplorer/tri_release.chemical

Drinking Water Systems

The EPA's Safe Drinking Water Information System (SDWIS) contains information about public water systems and their violations of EPA's drinking water regulations, as reported to EPA by the states. The EPA establishes maximum contaminant levels, treatment techniques, and monitoring and reporting requirements to ensure that water systems provide safe water to their customers (31).

As of July 8, 2018, SDWIS listed 100 active water systems in Wilkes County. Ten were *community water systems* that served 44,076 people. (A community water system is one with at least 15 service connections used by year-round residents or one that regularly serves 25 year-round residents. This category includes municipalities, subdivisions, and mobile home parks. Among these ten CWS's there were no health violations in the past 10 years. In addition to the four community water systems in Wilkes County, there were also three *non-transient, non-community water systems (N-T/N-C)* serving 615 people and 87 transient, non-community (*T/N-C*) water systems serving 3,736 people. (Water systems in the N-T/N-C category regularly supply water to at least 25 of the same people at least six months per year, but not year-round. Some examples are schools, factories, office buildings, and hospitals which have their own water systems. Water systems in the T/N-C category do not consistently serve the same people, and include rest stops, campgrounds, and gas stations.)

According to the data from SDWIS, the nine active community water systems in Wilkes County serve approximately 64% of the population. The remaining 36%, a significant segment of the county population, get their water from private wells or other sources and are at greatest risk for environmental contamination of their water source (32).

Solid Waste Disposal

The solid waste disposal trend in Wilkes County is moving in the right direction. In FY2016-17, Wilkes County managed 54,837 tons of municipal solid waste (MSW) for a rate of 0.78 tons per capita, a *decrease* of 19% from the per capita rate for FY1991-92 (the period customarily used for the base rate). During the same 2016-17 period, the overall state per capita solid waste management rate was 1.11, 3% *higher* than the FY1991-92 base per capita rate (33).

Almost all (99.9%) of the solid waste generated in Wilkes County is landfilled within the county, at the Wilkes County Municipal Solid Waste Landfill (34). According to a state report for FY2016-17 the county MSW landfill had capacity estimated to last for 18 years (35).

Rabies

According to the Epidemiology Section of NC DPH, there were 175 confirmed cases of rabies in animals in Wilkes County between 2007 and 2017. These county cases represent 4% of the total for the state over that period (36).

HEALTH DATA FINDINGS

USING HEALTH DATA

Routinely collected surveillance data can be used to describe—and compare—the health status of communities. These data, which are readily available in the public domain, typically use standardized definitions. Some of the important terms used in this section of the report are defined or explained below, as excerpted from the consultant’s comprehensive CHNA report:

- **Mortality rate** – The mortality rate, or the rate of death, is calculated by dividing the number of deaths in a target population in a given time period due to a specific cause by the total number of persons in the target population in the same period. Mortality rate typically is described as number of deaths per 100,000 persons.
- **Age-adjustment** - Many factors can affect the risk of death, including race, gender, occupation, education and income. The most significant factor is age, because as a population ages, its collective risk of death increases. In order to compare mortality data from one community with the same kind of data from another, it is necessary first to control for differences in the age composition of the communities being compared. This is accomplished by age-adjusting the data, a statistical manipulation usually performed by the professionals responsible for collecting and cataloging health data.
- **Aggregate data** – Aggregation of data combines annual data gathered over a multi-year period, usually three or five years. The practice of presenting data that are aggregated avoids the instability typically associated with using highly variable year-by-year data consisting of relatively few cases or deaths. Aggregating annual counts over a five-year period before calculating a rate is a method commonly used by the NC State Center for Health Statistics (NCSCHS). Sometimes even aggregating data is not sufficient, so the NCSCHS recommends that all rates based on fewer than 20 events—whether covering an aggregate period or not—be considered “unstable” and interpreted only with caution.
- **Morbidity** - Morbidity as used in this report refers generally to the presence of injury, sickness or disease (and sometimes the symptoms and/or disability resulting from those conditions) among the living population. Morbidity data usually is presented as a percentage or a count, but not a rate.
- **Prevalence** – Prevalence refers to the number of *existing* cases of a disease or health condition in a population at a defined point in time or during a defined period. Prevalence is usually expressed as a *proportion*, not a rate.
- **Incidence** - Incidence is the population-based *rate* at which *new* cases of a disease occur and are diagnosed. It is calculated by dividing the number of newly diagnosed cases of a disease or condition during a given period by the population size during that period. Typically, the resultant value is multiplied by 100,000 and is expressed as cases per 100,000; sometimes the multiplier is a smaller number, such as 10,000.
- **Pregnancy rate** – The pregnancy rate is the number of pregnancies per 1,000 women of target reproductive age. In this report, the target ages are “all women of reproductive age” (15-44 years) and “teen women” (15-19 years).

MATERNAL AND INFANT HEALTH

Pregnancy Rates

Overall Pregnancy Rate

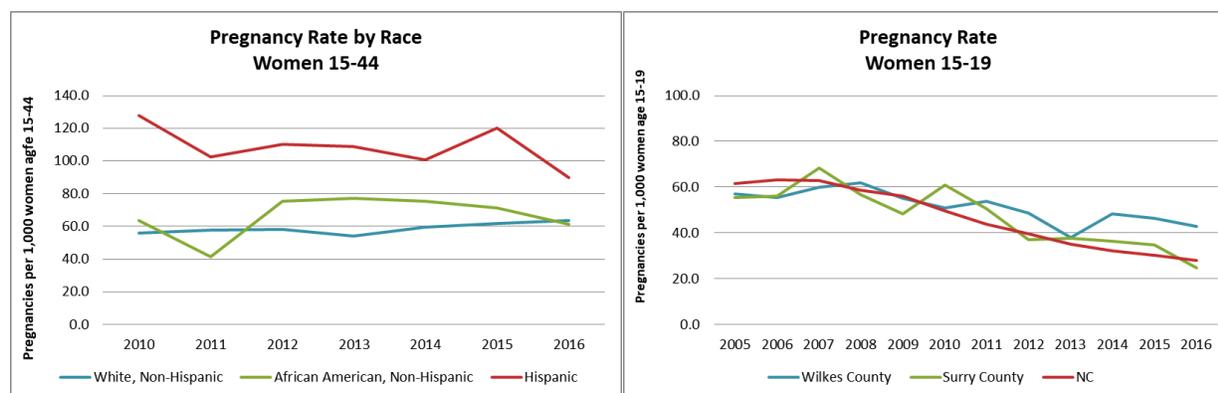
As is true for NC as a whole, the *overall* pregnancy rate for women of childbearing age (15-44) in Wilkes County has fallen from a high in 2007. But while the state rate has leveled off and stabilized at approximately 72 pregnancies per 1,000 women over the past three periods, the pregnancy rate in Wilkes County increased in recent years, from 59.2 in 2013 to 65.8 in 2016.

As demonstrated in the left-hand graph below, when stratified by race, the disparity between pregnancy rates for white and African American women in Wilkes County has narrowed over time: from 54.3 and 77.1 (respectively) in 2013 to 63.6 and 61.3 in 2016. The highest pregnancy rates in Wilkes County tend to occur among Hispanic women, although the rate declined from 120.3 in 2015 to 89.9 in 2016 (37).

Teen Pregnancy Rate

Pregnancy rates among teens (ages 15-19) in Wilkes County, Surry County and North Carolina fell overall between 2005 and 2016, as presented in the right-hand chart below. In Wilkes County, the decrease over that period was 26%; statewide the decrease was 54% and more consistent over time. In 2016, the teen pregnancy rate in Wilkes County was 42.9 pregnancies per 1,000 teen females, 53% *higher* than the state rate of 28.1. There were too few pregnancies among Wilkes teens when racially stratified to yield stable rates, so those figures are not reported here (38).

In terms of numbers rather than rates, teen pregnancies in Wilkes County fell from a high of 128 in 2008 to 85 in 2016, though the low number occurred in 2013 with 75 teen pregnancies (39).



NC Center for Health Statistics, County-level Data, Vital Statistics: Reported Pregnancies (single years as noted): <https://schs.dph.ncdhhs.gov/data/vital.cfm>

Pregnancy Risk Factors

High Parity and Short-Interval Births

According to NCSCHS, a birth is *high parity* if the mother is younger than 18 when she has had one or more births, or aged 18 or 19 and has had two or more births, or is 20-24 and has had four or more births, etc. A *short-interval* birth involves a conception occurring less than six months since the last birth. High-parity and short-interval pregnancies can be a physical strain on the mother and sometimes contribute to complicated pregnancies and/or poor birth outcomes.

For the aggregate period 2012-2016 the frequency of high parity births among Wilkes County women under the age of 30 (15.6%) was 10% *higher* than the comparable NC figure. Among Wilkes County women age 30 or older, the frequency of high parity births in the same period (24.1%) was also 10% higher than the comparable NC figure (40).

The frequency of short-interval births in Wilkes County in the 2012-2016 aggregate period (14.7%) was 20% higher than the comparable NC figure (41).

Lack of Early Prenatal Care

Good pre-conception health and early prenatal care can help assure women the healthiest pregnancies possible. The percent of pregnant women in Wilkes County who received early prenatal care (i.e., prenatal care in the first three months of their pregnancies) exceeded the comparable state figure in every year from 2011 through 2016. In 2016, 73.5% of pregnant women in Wilkes County received early prenatal care, compared to 69.0% of pregnant women statewide (42).

Smoking during Pregnancy

Smoking during pregnancy is an unhealthy behavior that may have negative effects on both the mother and the fetus. Smoking can lead to fetal and newborn death and contribute to low birth weight and pre-term delivery. The percent of births to mothers who smoked during pregnancy was significantly higher in Wilkes County (and in its peer, Surry County) than in NC between 2011 and 2016. The frequency of pregnant women who smoked in 2016 was 18.8% in Wilkes County, 17.7% in Surry County, and 8.9% statewide (43).

Birth Outcomes

Low and Very Low Birth Weight Births

Low birth weight can result in serious health problems in newborns (e.g., respiratory distress, bleeding in the brain, and heart, intestinal and eye problems), and cause lasting disabilities (mental retardation, cerebral palsy, and vision and hearing loss) or even death (44).

The overall frequency of low birth weight (≤ 5.5 lbs.) births in Wilkes County averaged 8.7% over the four aggregate periods from 2009-2013 to 2012-2016. This average county figure was lower than the comparable four-period average for the state (9.0%). When stratified by race, a clear disparity in these birth weight outcomes emerges. Over the same period, the frequency of low birth weight births among white non-Hispanic women in Wilkes County averaged 8.5% while the comparable frequency for African American non-Hispanic women in the county averaged 17.5%, double the rate for whites.

The overall frequency of very low birth weight (≤ 3.3 lbs.) births in Wilkes County averaged 1.6% over the same four aggregate periods, slightly lower than the comparable state average of 1.8%. Racially-stratified very low birth weight birth frequencies over the period cited were unstable and are not presented here (45).

Infant Distress at Birth

Assessing DRG codes associated with hospitalizations of newborns and neonates with conditions originating in the perinatal period (DGR codes 789-795) makes it possible to estimate the proportions of infants born in distress. The following table summarizes the total number of births with various degrees of problems at Wilkes Regional Medical Center in the period 2015-2017. Less than 1% of all births were associated with prematurity, but 30% of all other births presented with some other type of either significant or major problem.

**Newborns and Neonates with Conditions Originating in the Perinatal Period
Wilkes Regional Medical Center, 2015-2017**

	2015	2016	2017	Total
Total Neonates (DRG 789-795)	403	442	252	1,097
Extreme Immaturity/Respiratory Distress Syndrome (790)	0	0	0	0
Prematurity with Major Problems (791)	2	4	2	8
Prematurity without Major Problems (792)	28	22	18	68
Full-Term Neonate with Major Problems (793)	8	21	12	41
Neonate with Other Significant Problems (794)	79	83	57	219
Normal Newborn (795)	273	298	155	726

Source: Based on proprietary data provided to Sheila S. Pfaender, Public Health Consultant, by Wake Forest Baptist Health Wilkes Regional Medical Center.

Infant Mortality

The infant mortality rate is the number of deaths of infants under one year of age per 1,000 live births. The infant mortality rate in Wilkes County *increased* 32% between 2001-2005 and 2011-2015, with the rate decreasing slightly in 2012-2016. For 2012-2016, the overall infant mortality rate in Wilkes County was 9.0, 25% *higher* than the comparable state average of 7.2 (46). It bears noting at this point that the infant mortality rate in NC was among the 10 worst of the 50 states throughout the period covered by the statistic.

There are too few incidents of infant death among minorities in Wilkes County to calculate stable infant mortality rates, but it is apparent from statewide data that infant mortality rates among African American non-Hispanics far exceed the comparable rates for white non-Hispanics. Statewide in 2012-2016, the infant mortality rate among African American non-Hispanics was 13.0, almost twice the overall rate and 2½ times the comparable rate among white non-Hispanics (47).

LIFE EXPECTANCY AND LEADING CAUSES OF DEATH

Life Expectancy

According to data shown in the table below, life expectancies for persons born in 2014-2016 in Wilkes County were *lower* in all groups—except African Americans—than the comparable state averages. Note, however, that life expectancies in Wilkes County improved between 1990-1992 and 2014-2016 in all categories *except* females.

Life Expectancy at Birth, by Gender and Race

Location	Life Expectancy in Years									
	Person Born in 1990-1992					Person Born in 2014-2016				
	Overall	Male	Female	White	African-American	Overall	Male	Female	White	African-American
Wilkes County	75.7	72.5	78.8	76.0	69.6	76.1	73.7	78.6	76.3	75.4
Surry County	76.1	71.9	80.2	76.6	66.8	76.3	73.9	78.7	76.4	74.8
State of NC	74.9	71.0	78.7	76.4	69.8	77.4	74.8	79.9	78.3	74.9

Source: NC State Center for Health Statistics, County-level Data, Life Expectancy, State and County Estimates, Life Expectancy: North Carolina 1990-1992 and 2014-2016, State and County; <https://schs.dph.ncdhs.gov/data/lifexpectancy/>

Leading Causes of Death

The following four tables describe information on the leading causes of death in Wilkes County. The source for these tables is a PowerPoint presentation summarizing data that was prepared by the consultant and is appended to this report.

According to the table below, 2012-2016 mortality rates in Wilkes County exceeded the comparable rates statewide for ten of the 15 leading causes of death.

Leading Causes of Death in Wilkes County 2012-2016

Age-Adjusted Rates (2012-2016)	Wilkes Co. No. of Deaths	Wilkes Co. Mortality Rate	% Rate Difference from NC
1. Total Cancer	872	173.5	+4
2. Diseases of the Heart	826	166.8	+3
3. Chronic Lower Respiratory Disease	293	57.8	+27
4. All Other Unintentional Injury	191	50.7	+59
5. Cerebrovascular Disease	178	35.6	-17
6. Pneumonia and Influenza	158	33.1	+86
7. Alzheimer's Disease	158	31.9	0.0
8. Diabetes Mellitus	120	24.2	+5
9. Unintentional Motor Vehicle Injury	73	19.8	+40
10. Nephritis, Nephrotic Syndrome and Nephritis	81	16.1	-2
11. Septicemia	78	16.0	+22
11. Suicide	62	16.0	+24
13. Chronic Liver Disease and Cirrhosis	68	15.5	+51
14. Homicide	20	5.9	-5
15. AIDS	2	0.7	-68

The next table shows how the mortality rates for the leading causes of death in Wilkes County shifted in the *short-term* between 2009-2013 (the data used in the 2015 Wilkes County CHNA) and 2012-2016. From this data it is clear that mortality rates for some causes of death improved over the interval cited, but rates worsened for eight: heart disease, chronic lower respiratory disease, all other unintentional injuries, pneumonia and influenza, Alzheimer's disease, unintentional motor vehicles, suicide, and chronic liver disease and cirrhosis.

Leading Causes of Death in Wilkes County 2012-2016 and Change from 2009-2013

Wilkes County Rank by Descending Overall Age-Adjusted Rate (2012-2016)	Rate in 2009-2013	Rate in 2012-2016	% Rate Change 2009-2013 to 2012-2016
1. Total Cancer	182.7	173.5	-5
2. Diseases of the Heart	166.4	166.8	+0.2
3. Chronic Lower Respiratory Disease	53.0	57.8	+9
4. All Other Unintentional Injury	47.0	50.7	+8
5. Cerebrovascular Disease	41.7	35.6	-15
6. Pneumonia and Influenza	29.4	33.1	+13
7. Alzheimer's Disease	22.7	31.9	+41
8. Diabetes Mellitus	24.8	24.2	-2
9. Unintentional Motor Vehicle Injury	17.7	19.8	+12
10. Nephritis, Nephrotic Syndrome and Nephritis	16.1	16.1	nc
11. Septicemia	17.1	16.0	-6
11. Suicide	13.6	16.0	+18
13. Chronic Liver Disease and Cirrhosis	11.5	15.5	+35
14. Homicide	5.4	5.9	+9
15. AIDS	1.4	0.7	-50

Although complete analysis of the data in the next table is hampered by suppressed unstable rates, from the stable rates it does appear that Wilkes County males disproportionately suffer mortality from all leading causes of death except Alzheimer's disease.

Leading Causes of Death in Wilkes County 2012-2016, by Gender

Wilkes County Rank by Descending Overall Age-Adjusted Rate (2012-2016)	Rank Among Males	Rank Among Females	% Male Rate Difference from Females
1. Total Cancer	2	1	+55
2. Diseases of the Heart	1	2	+81
3. Chronic Lower Respiratory Disease	3	3	+31
4. All Other Unintentional Injury	4	4	+52
5. Cerebrovascular Disease	5	7	+29
6. Pneumonia and Influenza	6	6	+9
7. Alzheimer's Disease	11	5	-48
8. Diabetes Mellitus	7	8	+82
9. Unintentional Motor Vehicle Injury	8	13	n/a
10. Nephritis, Nephrotic Syndrome and Nephritis	10	10	+92
11. Septicemia	13	9	+16
11. Suicide	9	12	n/a
13. Chronic Liver Disease and Cirrhosis	12	11	+70
14. Homicide	14	14	n/a
15. AIDS	15	15	n/a

Racially stratified data is not available for many leading causes of death due to below-threshold numbers of deaths and suppressed unstable rates. However, stable data in the following table

indicates that African Americans in Wilkes County suffer disproportionate mortality due particularly to heart disease.

Leading Causes of Death in Wilkes County 2012-2016, by Race

Wilkes County Rank by Descending Overall Age-Adjusted Rate (2012-2016)	Rank Among White Non- Hispanic	Rank Among Black non- Hispanic	% Blacks Rate Difference from Whites
1. Total Cancer	1	2	-10
2. Diseases of the Heart	2	1	+51
3. Chronic Lower Respiratory Disease	3	n/a	n/a
4. All Other Unintentional Injury	4	n/a	n/a
5. Cerebrovascular Disease	5	n/a	n/a
6. Pneumonia and Influenza	7	n/a	n/a
7. Alzheimer's Disease	6	n/a	n/a
8. Diabetes Mellitus	8	n/a	n/a
9. Unintentional Motor Vehicle Injury	9	n/a	n/a
10. Nephritis, Nephrotic Syndrome and Nephritis	12	n/a	n/a
11. Septicemia	10	n/a	n/a
11. Suicide	11	n/a	n/a
13. Chronic Liver Disease and Cirrhosis	13	n/a	n/a
14. Homicide	14	n/a	n/a
15. AIDS	15	n/a	n/a

Each age group tends to have its own leading causes of death. Note that for this purpose, it is important to use *non-age adjusted* death rates. In the period 2012-2016, the leading cause(s) of death in each of the age groups in Wilkes County were as follows (48):

- Age Group 00-19: Conditions originating in the perinatal period
- Age Group 20-39: All other unintentional injuries (i.e., non-motor vehicle injuries)
- Age Group 40-64: Cancer – all sites
- Age Group 65-84: Cancer – all sites
- Age Group 85+: Diseases of the heart

The next table, also from the consultant's PowerPoint presentation, summarizes *long-term* mortality rate trends in Wilkes County for the 15 leading causes of death. The summary arrow describes the direction of slope of a regression line calculated using the 12 rolling five-year aggregate mortality rates in the period from 2001-2005 through 2012-2016. A downward arrow indicates a falling slope/rate; an upward arrow indicates a rising slope/rate. It is apparent from this data that over the period cited mortality rates in Wilkes County improved overall for 6 of the 15 leading causes of death. Unfortunately, rates *increased* overall for eight causes of death: chronic lower respiratory disease, all other unintentional injuries, pneumonia and influenza, diabetes, kidney diseases, septicemia, chronic liver disease and cirrhosis, and homicide. The many unstable rates for AIDS prohibited a time trend comparison.

**Trends of Change in the Leading Causes of Death in Wilkes County
2001-2005 through 2012-2016**

Leading Cause of Death in Wilkes County	Overall Trend Direction
1. Total Cancer	▼
2. Diseases of the Heart	▼
3. Chronic Lower Respiratory Disease	▲
4. All Other Unintentional Injury	▲
5. Cerebrovascular Disease	▼
6. Pneumonia and Influenza	▲
7. Alzheimer's Disease	▼
8. Diabetes Mellitus	▲
9. Unintentional Motor Vehicle Injury	▼
10. Nephritis, Nephrotic Syndrome and Nephritis	▲
11. Septicemia	▲
11. Suicide	▼
13. Chronic Liver Disease and Cirrhosis	▲▲
14. Homicide	▲
15. AIDS	▲

Despite a decreasing mortality trend, total cancer was the leading cause of death in Wilkes County in the 2012-2016 period. Examining incidence and mortality rate trends for site-specific cancers clarifies the problem of cancer in the community. The following table from the consultant's PowerPoint presentation summarizes trends in the incidence and mortality rates for five site-specific cancers: lung cancer, prostate cancer, breast cancer, colorectal cancer, and pancreas cancer. The incidence data covers the period from 1996-2000 through 2012-2016 and the mortality rate data covers the period from 2001-2005 through 2012-2016. The symbol protocol is the same as that used in the table above.

**Trends of Change in Cancer Incidence and Mortality in Wilkes County
Incidence, 1996-2000 through 2012-2016
Mortality, 2001-2005 through 2012-2016**

Cancer Site	Parameter	Overall Trend Direction
Lung Cancer	Incidence	▲
	Mortality	▼
Prostate Cancer	Incidence	▼
	Mortality	▼▼
Breast Cancer	Incidence	▼
	Mortality	▼
Colorectal Cancer	Incidence	▼
	Mortality	▼
Pancreas Cancer	Incidence	n/a
	Mortality	▲

The table above shows that mortality has decreased over time for all the site-specific cancers cited except pancreas cancer.

It is difficult to fully interpret cancer incidence data without information about cancer screening activities, since screenings sometimes raise incidence rates by discovering cancer cases that might otherwise go unnoticed for some period of time. A rise in incidence connected to screening is not necessarily a bad thing, since the resulting figure may include numerous cases that were caught early and treated. The data above indicate that incidence has risen for lung cancer. While screenings for prostate, breast and colorectal cancers are common, currently there is no routine lung cancer screening mechanism.

The rise in lung cancer incidence is not surprising, since one major cause of lung cancer, smoking, remains a problem in Wilkes County. As illustrated in the data on smoking during pregnancy, pregnant women in Wilkes County smoke at a frequency almost twice the state average. According to the results of the 2018 Wilkes County Community Health Survey, 13% of 548 respondents reported that they were current tobacco users (49).

MORBIDITY AND CHRONIC DISEASE

Diabetes

As noted previously, diabetes was the eighth leading cause of death overall in Wilkes County in 2012-2016. In that period the county diabetes mortality rate exceeded the state rate by 5%, and it had decreased by 2% since the 2009-2013 period.

Data available from the Centers for Disease Control and Prevention (CDC) describes the estimated prevalence of diagnosed diabetes among adults age 18 and older at the county level. According to this data (derived from the BRFSS) the prevalence of self-reported adult diabetes in Wilkes County was 8.7% in 2013 and averaged 9.8% over the period from 2006 through 2013. The comparable figures for Surry County were 11.1% and 10.5%, and the comparable NC were 10.5% and 9.5%, respectively (50).

Nineteen percent (19%) of the respondents to the 2018 Wilkes County Community Health Survey reported having received a medical diagnosis of diabetes (49).

Overweight and Obesity

Overweight and obesity are well-recognized as precursors to many health problems, including diabetes. As with diabetes, the CDC describes the estimated prevalence of diagnosed obesity in adults age 18 and older at the county level. According to this data (also derived from the BRFSS) the prevalence of diagnosed obesity in Wilkes County was 26.5% in 2013; and averaged 28.2% over the period from 2006 through 2013. The comparable figures for Surry County were 31.0% and 29.5%, respectively. (Similar state-level data is not available from the source.) (51).

According to results from the 2018 Wilkes County Community Health Survey, 36% of respondents reported that they had been diagnosed by a doctor, nurse or other health professional as either overweight or obese (49).

While data on childhood obesity is just as sparse as data on adult obesity, the existing data appears to indicate that overweight and obesity are as pervasive among toddlers as among

adults. According to 2015 data from NCPedNESS (North Carolina Pediatric Nutrition and Epidemiology Surveillance System), 17.6% of 2- 4-year-olds in the NCPedNESS program in Wilkes County were overweight and 14.6% were obese). For comparison, according to the same source, in Surry County 16.7% of 2- 4-year-old participants were overweight and 14.2% were obese, and statewide 15.0% were overweight and 14.0% were obese (52).

Complications from overweight and obesity include not only diabetes but also heart disease, high cholesterol, and high blood pressure. Each of these conditions is prevalent in the Wilkes County community, as indicated by results of the 2018 Wilkes County Community Health Survey. In this survey, 5% of the respondents reported they had been diagnosed with angina or heart disease, 30% reported they had been diagnosed with high cholesterol, and 35% had received a diagnosis of hypertension/high blood pressure (49).

Communicable Disease

Sexually transmitted infections (STIs) are the most common communicable diseases in Wilkes County. Among STIs, chlamydia is the most prevalent, followed by gonorrhea. Wilkes County incidence rates for both chlamydia and gonorrhea were consistently lower than comparable rates for the state overall from 2009 through 2016. In 2016 the Wilkes County incidence rate for chlamydia infection was 222.6 new cases per 100,000 population. The comparable chlamydia rate statewide was 572.4 (53). In 2016 the gonorrhea incidence rate in Wilkes County was 39.3 new cases per 100,000 population. The comparable rate statewide was 194.4 (54). Nationally, the highest rates of gonorrhea have been found in African Americans, people 20 to 24 years of age, and women, respectively (55).

Mental Health

According to data gathered from the Log Into North Carolina (LINC) website, between 2008 and 2017 the number of Wilkes County residents served in state psychiatric hospitals fell by over 88% (56). This would be in keeping with NC's mental health reform goal of steering mental health patients to local, rather than state, facilities. On the other hand, LINC data shows that between 2009 and 2017 the number of Wilkes County residents served by the Area Mental Health Program (LME/MCO) increased overall by 27% (57). On the 2018 Wilkes Community Health Survey, 24% of respondents self-reported a personal diagnosis of depression (49), so high utilization of LME/MCO services would be expected.

It is unclear, however, whether the local resources of the LME/MCO are meeting all the community's mental health needs, because the hospital emergency department (ED) is seeing many mental health patients. According to de-identified ED discharges data provided to the consultant by Wake Forest Baptist Health Wilkes Medical Center, an average of 3% of all ED discharges (between 618 and 836 patients) in the three-year period 2015-2017 were associated with mental health diagnoses in the ICD-9/10 category, Mental, Behavioral and Neurological Disorders. The average annual number of hospital ED visits for mental health conditions in the period 2015 through 2017 (823) equaled approximately 29% of the number of patients served by Vaya Health in 2017 (2,811) (57). Further, survey respondents identified mental health and counseling services in Wilkes County second-highest on the list of services needing improvement (49).

Utilization of NC State Alcohol and Drug Abuse Treatment Centers by Wilkes County residents averaged only 35 patients per year over the period 2009-2016 (58), a relatively low number. There is a question as to whether the need for substance abuse treatment is being adequately

met in Wilkes County, since respondents to the community health survey named alcohol/drug abuse as the community issue *most* affecting the quality of life in the county and identified substance abuse services as the leading community service needing improvement (49).

HEALTH RESOURCES

Access to and utilization of healthcare is affected by a range of variables including the availability of health insurance coverage, availability of medical and dental professionals, transportation, cultural expectations and other factors.

HEALTH INSURANCE

In most communities, citizens’ utilization of health care services is related to their ability to pay for those services, either directly or through private or government health insurance plans and programs. People without health insurance are often the segment of the population least likely to seek and/or to be able to access necessary health care.

The table below summarizes the population (by age group) without health insurance of any kind from 2014 through 2016. The table illustrates how the percent uninsured in the 19-64 age group (the typical “working age group”) decreased steadily in Wilkes County between 2014 and 2016. Prior to the advent of the Affordable Care Act the health insurance system in the US was built largely on employer-based insurance coverage, and any significant increase in the number of unemployed people usually led to an increase in the number of uninsured. With the possibility of changes to the Affordable Care Act, this data should be closely tracked in the future.

Percent of Population without Health Insurance, by Age Group

Location	2014			2015			2016		
	0-18	19-64	0-64	0-18	19-64	0-64	0-18	19-64	0-64
Wilkes County	5.8	22.5	18.1	5.6	19.6	15.9	4.9	18.5	14.9
Surry County	7.2	22.9	18.6	6.1	19.6	15.9	5.1	18.7	15.0
State of NC	5.5	18.9	15.2	4.6	16.2	13.0	4.7	15.1	12.2

Small Area Health Insurance Estimates [years as noted]. U.S. Census Bureau, Small Area Health Insurance Estimate (SAHIE) Interactive Data Tool. Geographies and age groups as noted. <https://www.census.gov/data-tools/demo/sahie/sahie.html>

The 2018 Wilkes County Community Health Survey asked participants whether they had health insurance at the time of the survey (summer, 2018). Among the 548 respondents who participated, 11% did not have health coverage (49), a figure not even close to the admittedly dated figures in the table above. The smaller proportion of uninsured identified in the survey compared to the data in the table may be due to several factors, including uneven distribution of survey participants (the survey was based on a convenience sample that reached predominately wealthier and well-educated residents), and an improving economy. It is also possible that the lower survey figure was connected to persons having gained coverage through the Affordable Care Marketplace.

In the opposite case from poverty, which as was reported previously is worse among children, the percent of children who are uninsured is *lower* than the percent of adults. The table above contains data showing that the percent of children age 0-18 without health insurance is much lower than the comparable percent for the 19-64 age group, and that the figure for children fell

between 2014 and 2016. This may be attributed in part to the fact that, as shown in the following table, enrollment in NC Health Choice and Medicaid-supported CHIP programs in Wilkes County remains high.

Enrollment in Medicaid and NC Health Choice (CHIP), Wilkes County

Wilkes County	MCHIP	County Total	CHIP	CHIP Extended Coverage
Annual Unduplicated 2017	1,175	16,975	1,030	
Annual Unduplicated 2016	1,263	17,102	1,005	10
Annual Unduplicated 2015	1,283	16,745	927	23

Enrollment Counts by County and Budget Groups. NC Division of Medical Assistance, Reports, Enrollment Reports [years as noted]. <https://dma.ncdhhs.gov/documents/reports/enrollment-reports/medicaid-and-health-choice-enrollment-reports>

HEALTH CARE PROVIDERS

The Cecil B. Sheps Center for Health Services Research at UNC Chapel Hill computes ratios of providers to population for major groups of health care professionals. The ratios of providers to population for major groups of health care professionals in Wilkes County are lower than state averages: the ratios for MDs (10.21 per 10,000 population compared to 23.78 in NC), registered nurses (64.51 per 10,000 compared to 100.68 statewide), dentists (1.98 per 10,000 population compared to 4.98 in NC), and pharmacists (4.71 per 10,000 population compared to 11.4 across the state) in 2017 (59). This data might indicate a potential health care access problem in Wilkes County.

Participants in the 2018 Wilkes County Community Health Survey also were asked whether they (or a family member) had had a problem accessing medical, dental or pharmaceutical care in the past 12 months, and 50% answered “yes”. Among those who had access problems, the most frequently cited barrier was “cost” (i.e., deductible or co-pay) too high”, followed by “no insurance”, and “insurance didn’t cover needed service” (49).

The aging of the healthcare workforce may also be a growing concern in Wilkes County: in 2017 21.4% of active dentists and 20.8% of active physicians were over the age of 65 (59). As providers age, they often choose to work on limited days or during shortened hours, further complicating the healthcare access issue in Wilkes County. This may partly explain why 10% of respondents to the 2018 Community Health Survey reported that they could not get a timely appointment with their chosen health care provider, and another 8% reported that the wait for a necessary medical appointment was “too long” (49).

HEALTH CARE FACILITIES

Hospital

The town of North Wilkesboro is home to Wake Forest Baptist Health Wilkes Medical Center, which offers a full line of comprehensive medical and educational services. The facility is licensed for 120 beds, including 10 skilled nursing beds on the main campus. The hospital provides both inpatient and outpatient services, including an emergency department and women’s services. Through offsite facilities the medical center has expanded outpatient services to include a 19-station Dialysis Center and a state-of-the-art cardiac and pulmonary Rehabilitation Center (60).

Health Department

The Wilkes County Health Department is in the heart of downtown Wilkesboro. It has been serving the community for over 50 years, offering services from well/sick visits, health promotion and healthy lifestyle choices, diabetes and nutritional counseling, maternity and postpartum care, and immunizations, to environmental health services such as well water testing, septic and waste water services, and restaurant inspections.

The Wilkes County Health Department cares for men, women and children by providing comprehensive services focused on wellness, education and prevention. Agency programs include disease prevention and control, preparedness and response to emergent diseases and events, environmental health, WIC, and personal health programs, such as prenatal care services, well and sick adult and child healthcare, and adult and child dental services (61).

Federally-Qualified Health Center

Wilkes Community Health Center, which is operated by the Health Department, is located in Wilkesboro and was recently designated a FQHC. The facility provides comprehensive primary and preventive care to people of all ages, regardless of their ability to pay. They accept private insurance, Medicare and Medicaid, as well as the uninsured, and offer a sliding scale discount program for patients. Interpreters are available for multiple languages and services are offered for those with a disability, the deaf, and the hard of hearing. Services include primary care for adults and children, gynecological care and family planning, mental health and substance abuse services, nutrition, preventive dental care, screenings, immunizations, laboratory, and pharmaceutical services (62).

Emergency Medical Services

Established in 1971, Wilkes County Emergency Medical Services (EMS) is a county government owned and operated medical service. Employing 54 full time and 26 part time field paramedics, Wilkes County Emergency Medical Services operates two full-time bases providing around-the-clock advanced life support care for the citizens of Wilkes County. Wilkes EMS responds to over 12,000 calls per year, with crews working 12 hours day or night shifts and with one quick-response vehicle per shift (63).

School Health

The local educational authority in Wilkes County, Wilkes County Schools, employs all school health nursing staff. Student's needs range from first aid for cuts, acute illness nursing, and hygiene counseling to chronic disease management, grief counseling, and suicide prevention. The most recent (SY2012-2013) ratio of school nurses to students in Wilkes County schools was 1:1009; during the same school year the ratio for the state was 1:1,177 (64). The recommended ratio is 1:750.

Long-Term Care Facilities

As of May 2018, there were three state-licensed nursing homes, three adult care homes/homes for the aged, and no family care home in Wilkes County, together offering 668 beds (65). Wake Forest Baptist Health Wilkes Medical Center also maintains 10 skilled nursing care beds, bringing the county total to 678 (64). As was discussed previously, this number of beds may not be adequate for a county whose population over the age of 65 is projected to grow significantly in the next 15 years.

Home Care, Home Health and Hospice Services

An alternative to institutional care preferred by many disabled and senior citizens is to remain at home and use community in-home health and/or home aide services. This report prefers to cite only those in-home health and/or home aide services that are licensed by the state of NC. Note that there may be additional providers in Wilkes County that refer to themselves as “home health service (or care) providers” that are *not* licensed by the state and are not named in this report.

As of May 2018, there were 14 licensed home care, home health or hospice providers in Wilkes County, all of them located in either Wilkesboro or North Wilkesboro (66). In addition, the Wilkes County Department of Social Services provides several home-care related services for their clients who qualify for other governmental services (67). Given the projected growth of the county, it would be prudent to more fully assess the adequacy of these alternatives to institutional care of the elderly and disabled as the county grows.

Mental Health Services Providers and Service Facilities

At the time this report was prepared, the local management entity/managed mental health care organization (LME/MCO) for Wilkes County was Vaya Health, which is headquartered in Asheville, NC and serves a total of 13 counties in western NC. There is a toll-free number (1-800-225-2785) by which the public can find out how to obtain services and support for mental health, developmental disabilities and substance abuse in their community. The number is operational 24 hours a day, 7 days a week (68). The January 2019 edition of the Vaya Health LME/MCO Provider Directory lists 19 contracted providers or agencies with physical addresses in Wilkes County (69).

While respondents to the 2018 Wilkes County Community Health Survey seem to have a sense of the nuance among the various mental health-related needs of their community, it is not clear whether they understand how the LME/MCO connects to any of the resources available in the county. Three questions were asked as to where they might refer a friend or family member considering suicide, with a mental health concern, or with a substance abuse problem. Respondents seemed to understand the urgency demanded by suicidal thoughts, with 26% suggesting a crisis hotline and 12% indicating that 911 would be the primary source of help. A minister or religious official was the second most commonly identified source of help for suicide (14%). For mental health counseling, the most common source of help was a private counselor or therapist (25%), followed by Daymark (17%) and a doctor (17%). Daymark (19%) and a doctor (19%) were the most common sources of help for a substance abuse problem, followed by support groups (12%) and a private counselor or therapist (11%). Note that Vaya Health LME/MCO was not a specific choice offered in the survey questions. Approximately 5% of respondents to all three questions said they “did not know” where to refer someone. Accurate knowledge about mental health services should be important to Wilkes County citizens, since 23.5% of respondents to the 2018 Community Health Survey reported they had been diagnosed with depression (49).

As of May 2018, there were 29 state-licensed mental health *facilities* in Wilkes County, most of which offered supervised living, day services, or sheltered workshops for developmentally disabled adults. Only four of the listed facilities provided substance abuse services (70).

Other Healthcare Resources

As of May 2018, there were no independent, free-standing ambulatory surgical facilities in Wilkes County (71). There is only one Medicare-approved dialysis facility in the county (operated by Wake Forest Baptist Health Wilkes Medical Center), although there are others within a 50-mile radius of Wilkesboro (72). Since, as noted previously in this document, diabetes is one of the county's leading health problems and high blood pressure is prevalent according to the 2018 Wilkes County Community Health Survey, complications from these conditions, including kidney failure, might be expected to become more prevalent as well. The community should investigate the need for kidney dialysis now and in the future and determine if this one dialysis facility is adequate.

Disease Prevention and Health Promotion Resources

The following is a list of some of the prevention and health promotion resources in Wilkes County. Specifically, these resources are provided by the Wilkes County Health Department/Wilkes Community Health Center with partnership and support from community stakeholders. It is by no means an exhaustive list. The list highlights services, programs, partnerships, community resources and facilities, and a resource guide, all of which have and will continue to play an important role in addressing the health priorities of Wilkes County.

Diabetes and Nutrition Center. The Wilkes County Diabetes and Nutrition Center began in 2009 as part of the Wilkes County Health Department. Since then, it has grown to become the largest American Diabetes Association accredited Health Department Diabetes program in the state. Working with the Health Foundation, Wilkes Regional Medical Center, and at the request of the medical community, the Diabetes and Nutrition Center opened its new building in 2012.

Medical Expanded School Health (MESH). MESH is a mobile medical unit that goes to Wilkes County High schools Monday-Friday. MESH makes it convenient to provide care to the students while at school, therefore, decreasing the amount of time that students are out of the classroom. Students return to class in a timely manner. MESH is staffed by a Family Nurse Practitioner and a Nurse every day. MESH also has a counselor 3 days per week. MESH coordinates with school nurses to be at the school on opposite days. MESH provides minor illness/injury assessment and treatment, sports physicals, and certain immunizations and laboratory tests. There are over-the-counter medications on the MESH unit for symptom relief and prescriptions can be written. The counselor is available to talk to students when necessary.

Joint Use Agreements. Wilkes County has increased access to recreational facilities for county residents and organizations through joint use agreements. WCHD has established a joint use agreement with Wilkes County Schools for shared usage of school playgrounds. This agreement opens all 13 Wilkes County School's elementary school playgrounds during weekdays from after school until dusk, and on weekends from dawn until dusk.

Local Farmers' Markets. The Wilkes Open Air Market (WOAM) in Wilkesboro and the Yadkin Valley Marketplace in North Wilkesboro make fresh, local foods more accessible during the growing season. WCHD's involvement in these local farmer's markets is through a program that provides vouchers to low-income families with children to encourage their use of fresh, local produce. The farmers paid with the vouchers in turn redeem them for a cash equivalent. Additionally, WCHD and Wilkes County's Cooperative Extension partner to conduct cooking demonstrations at markets throughout the season, aiming to show families how to utilize local produce through healthy and simple recipes.

Smoking Cessation. WCHD connects smokers looking to quit to appropriate resources and provides technical assistance with smoke- and tobacco-free policies in public spaces. Clients looking to quit smoking are often referred to the NC Quitline, and providers also utilize the “5 A’s” evidence-based strategy. WCHD has also been involved in helping draft and enact smoke free policies in spaces such as county buildings and multi-unit housing and connecting partners with Wilkes County’s regional Tobacco Control Manager.

Brenner FIT. The Brenner FIT Academy is a six-month program designed to help families with children, ages 2-18, who have concerns about their child's weight and health. No doctor’s referral necessary. If families have a concern about their child’s weight and health, the family may join the program. The program lasts for six months, and while family is enrolled and participates in classes, they receive a family membership at the Y.

For additional information on any of these resources contact Wilkes County Health Department (336-651-7450).

COMMUNITY CONCERNS SUMMARY

COMMUNITY HEALTH SURVEY

The 2018 Wilkes County Community Health Survey solicited respondents' concerns about community issues, environmental health concerns, services needing improvement, information needed about healthy behaviors, and health topics about which youth needed information. The 2018 survey was conducted primarily electronically, using Survey Monkey, but paper copies also were made available in both English and Spanish. A stratified convenience sample approach was used, reached 548 participants, and collected useable responses from 533 citizens of the county. Despite attempts to prevent it, certain groups were either over-sampled or under-sampled. The 2018 survey respondent pool can be generally characterized as predominately female, ethnically diverse, more affluent, and more highly educated than the general population. (A full discussion of the demographic characteristics of survey participants appears in the consultant's comprehensive report.). The survey instrument appears as Appendix 3 of this document.

The tables below are from the consultant's comprehensive 2018 CHNA report, available on the Wilkes County Health Department website.

Community Issues Most Affecting Quality of Life in Wilkes County

	#	%
Substance Abuse (drugs and alcohol)	330	64.5%
Economic issues (unemployment, poverty, lack of higher paying jobs)	270	52.7%
Mental Health Concerns (depression, suicide, stress, hopelessness)	158	30.9%
Affordability of health services	149	29.1%
Abuse and neglect	109	21.3%
Lack of/inadequate health insurance	83	16.2%
Transportation options	55	10.7%
Lack of social support (support groups, social activities, loneliness, friendships)	54	10.6%
Educational issues (access to higher education, quality, dropping out of school)	51	10.0%
Hunger	46	9.0%
Homelessness	45	8.8%
Crime (violence, theft, sexual assault)	40	7.8%
Domestic Violence	32	6.3%
Discrimination/Racism	29	5.7%
Other (please specify)	15	2.9%

Respondents were asked to select, in no particular order, the three community issues from a list of 14 that most affected the quality of life in Wilkes County. The most frequently cited issue was drug/alcohol abuse, listed by 65% of respondents. The second most commonly selected community issue was economic issues (53%).

While this question did not focus on health issues, mental health was selected as the third most important community issue, named by 31% of all respondents. The availability of health services was identified as an important community issue by 29% of respondents.

Health Behaviors Most Affecting Quality of Life in Wilkes County

	#	%
Substance Abuse	372	72.7%
Unhealthy lifestyle (poor eating habits, lack of exercise)	230	44.9%
Anxiety/depression/stress	217	42.4%
Lack of good parenting	196	38.3%
Smoking/tobacco use	116	22.7%
Not getting preventive medical care (vaccines, checkups, screenings)	83	16.2%
Angry, violent behavior	69	13.5%
Unsafe driving (texting while driving, not using child safety seats, not wearing seatbelts)	61	11.9%
Unsafe sexual practices (no pregnancy/STD prevention)	61	11.9%
Suicide	29	5.7%
Poor preparation for an emergency or disaster	17	3.3%
Not getting pre-natal (pregnancy) care	9	1.8%
Other (please specify)	8	1.6%

Respondents were asked to select, in no particular order, the three health behaviors from a list of 12 that most affected the quality of life in Wilkes County. The most frequently cited behavior was substance abuse, listed by 73% of respondents. The second most commonly selected health behavior was unhealthy lifestyle (45%). Anxiety, depression and stress ranked third (42%).

Environmental Health Issues Having the Greatest Effect on Wilkes County

	#	%
Meth labs	324	63.3%
Secondhand smoke	282	55.1%
Household hygiene	232	45.3%
Mold	144	28.1%
Food safety	86	16.8%
Air pollution	83	16.2%
Drinking water	72	14.1%
Septic system failure	35	6.8%
Fluoride-enriched water	32	6.3%
Lead exposure	18	3.5%
Other (please specify)	18	3.5%
Radon	10	2.0%

The survey also sought community input on which environmental health issues respondents felt most affected Wilkes County. Again, issues (n=11) were listed and respondents were asked to select three, in no particular order. The most frequently selected environmental problem was “meth labs” (63%), followed by second smoke (55%) and household hygiene (45%).

Wilkes County Services Needing the Most Improvement

	#	%
Substance abuse services	207	40.4%
Mental Health and Counseling services	170	33.2%
Services for the elderly	163	31.8%
Better/more recreational facilities	151	29.5%
Services for children (fostering programs, CDSA, child care centers)	133	26.0%
Career/job centers	130	25.4%
Transportation options	104	20.3%
Better/healthier food choices	98	19.1%
Road maintenance and safety	95	18.6%
Food Banks/Pantries	67	13.1%
Transitional/halfway housing	51	10.0%
Animal Control	50	9.8%
Other (please specify)	19	3.7%

Opinion was also sought from the respondents about the community services most in need of improvement in their neighborhoods or communities. The survey offered a list of 12 named services and again asked respondents to select the three they thought needed the most improvement. The most frequently selected services in need of improvement were substance abuse services (40%) and mental health and counseling services (33%).

Biggest Substance Abuse Problems in Wilkes County

Among Adults	#	%	Among Youth	#	%
Abusing prescription drugs	384	76.0%	Alcohol abuse	243	48.1%
Methamphetamine (Meth)	311	61.6%	Abusing prescription drugs	232	45.9%
Alcohol abuse	185	36.6%	Marijuana	223	44.2%
Using someone else's prescription drugs	172	34.1%	Using someone else's prescription drugs	205	40.6%
Heroin	124	24.6%	Methamphetamine (Meth)	158	31.3%
Drinking and driving	97	19.2%	Drinking and driving	141	27.9%
Cocaine/crack	74	14.7%	Heroin	53	10.5%
Marijuana	60	11.9%	Cocaine/crack	51	10.1%
I don't know	24	4.8%	I don't know	38	7.5%
Other (please specify)	7	1.4%	Huffing (inhaling glue, dust-off, etc.)	34	6.7%
Huffing (inhaling glue, dust-off, etc.)	3	0.6%	Other (please specify)	7	1.4%

Respondents were to choose from a list of 11 substance abuse issues the three they thought most affected adults and the three that most affected youths in Wilkes County. The most commonly selected issues among adults were abusing prescription drugs (76%), methamphetamines (62%) and alcohol abuse (37%). The most commonly identified issues among youths were alcohol abuse (48%), abusing prescription drugs (48%) and marijuana (44%).

STAKEHOLDER SURVEY

The Wilkes CHNA Team sent out a survey to 45 community stakeholders, who were given two weeks to complete the survey. The survey asked each stakeholder the same eight questions. In September, the health department analyzed 34 participant surveys. Results of the Stakeholder Surveys are summarized in this report. A full discussion of the Stakeholder Survey is available in the consultant's comprehensive report.

The target participants of the Stakeholder Survey, all of whom represented health and human service agencies and organizations in Wilkes County, were asked the following survey questions:

1. What is your position in your agency?
2. What services does your agency provide for county residents?
3. Describe county residents who are most likely to use your services.
4. In the past 5 years, have there been any changes in the composition of the people who use your services?
5. In the past 5 years, have there been any changes in the needs of the people who use your services?
6. What barriers do residents face in accessing your services?
7. What does your agency do to help overcome those barriers?
8. What services or programs that aren't currently available in the community do you think are needed (whether or not they would be provided by your agency)?

The results of the stakeholder interviews are summarized (briefly) below, according to the "themes" which emerged from discussion of each question or topic. Note that the numbers do not necessarily imply any rank order.

1. Position in agency

- 41% were directors/executives
- 27% were management
- 9% were registered nurses
- 24% were support staff

2. Types of Services

- 35% substance abuse-, addiction- or mental health-related (largest segment)
- Healthcare, dental, safety, prevention, public services and education

3. Population Utilizing Services

- Many offer services to all residents
- 23% serve children/youth
- 32% serve those with mental health or substance abuse issues

- 24% serve low income, Medicaid recipients, the uninsured
- 8% serve businesses or business owners
- 62% said there have been no changes to the composition of people using their services in the last 5 years.
- 38% have seen changes in their client base

4. Changes in Composition of Clients

- 61.8% stated there have not been any changes in the composition of their clients

5. How Client Needs Have Changed in the last 5 years (65% response rate)

- Need for jobs, transportation, housing
- Healthcare needs
- Food resources

6. Barriers Faced by Clients

- Transportation (identified by 44% of participants)
- Stigma
- Monetary
- Language

7. Overcoming Barriers

- To address **transportation**:
 - provided financial assistance
 - reduced transportation required
 - offered services by phone
 - went out into the community
- Interpreters
- Education
- Better advertising

8. Needed Services

- **Transportation**
 - county-wide bus route
 - expand current route to a regular, more frequent schedule
 - low cost public transportation would increase services utilization
 - Sidewalks
 - Bike shares
 - Taking services out into the community
- **Increase the variety of community programs**

WILKES COUNTY PROGRESS TOWARD HEALTHY NC 2020 GOALS

Parameter	Wilkes County	Current NC	2020 Target
Tobacco Use			
% Adults Current Smokers	13% of 2018 survey respondents	17.9% (2016)	13.00%
% HS Students Using Any Tobacco Products	not available at the county-level	28.8% (2017)	15.00%
% of People Exposed to 2nd-Hand Smoke in Workplace in Past 7 Days	not available at the county-level	7.7% (2016)	0.00%
Physical Activity and Nutrition			
% of HS Students Not Overweight or Obese	not available at the county-level	69.1% (2017)	79.20%
% Adults Getting Recommended Physical Activity	not asked on 2018 survey	48.1% (2015)	60.60%
% Adults Consuming 5 Servings Fruits/Vegetables Daily	30% of 2018 survey respondents	56.7% (2015)	29.30%
Injury and Violence			
Unintentional Poisoning Mortality Rate/100,000 Population	35.1 (2012-2016)	18.5 (2016)	9.9
Unintentional Falls Mortality Rate/100,000 Population	not available	10.8 (2016)	5.3
Homicide Rate/100,000 Population	5.9 (2012-2016)	7.5 (2016)	6.7
Maternal and Infant Health			
White/African American Disparity in Infant Mortality	no minority rates available	2.68 (2016)	1.92
Infant Mortality Rate/1,000 Live Births	9.0 (2012-2016)	7.2 (2016)	6.3
% Women Who Smoke During Pregnancy	18.8% (2016)	8.9% (2016)	6.80%
Sexually Transmitted Disease and Unintended Pregnancy			
% Unintended Pregnancies	no county numbers only statewide	32.2% (2016)	30.90%
% Positive Chlamydia Tests Ages 15-24	no county-level data available in recent years	11.1% (2016)	8.70%
Rate of New HIV Infection Diagnoses/100,000 Population	6.8 (2016)	13.9 (2016)	22.2
Substance Abuse			
% HS Students Consuming Alcohol on 1 or More of Past 30 Days	not available at the county level	26.5% (2017)	26.40%
% Alcohol-Related Traffic Crashes	4.3% (2017)	4.2% (2016)	4.70%
% ≥ Age 12 Reporting Illicit Drug Use in Past 30 Days	not available at the county-level	9.9% (2015-16)	6.60%
Mental Health			
Suicide Rate/100,000 Population	16.0 (2012-2016)	13.0 (2016)	8.3
Average Number Poor Mental Health Days Among Adults in Past 30 Days	not available at the county level	3.8 (2016)	2.8
Rate Mental Health-Related ED Visits/10,000 Population	not available	103.3 (2014)	82.8
Oral Health			
% Children Aged 1-5 Enrolled in Medicaid Receiving Dental Services in Past 12 Months	not available	60.4% (2016)	56.40%
Average Number Decayed, Missing or Filled Teeth among Kindergarteners	no longer available at the county level	1.6 (2015-16)	1.1
% Adults With Permanent Teeth Removed Due to Tooth Decay/Gum Disease	not available	47.6% (2016)	38.40%
Environmental Health			
% Air Monitoring Sites Meeting Current Ozone Standard (0.075 ppm)	not available	100% (2014-16)	100.00%
% Population Served by Community Water Systems with No Contaminant Violations	unclear from the data available	96.3% (2016)	95.00%
Work-Related Injuries Mortality Rate/100,000 Equivalent Full-Time Workers	not available	3.7 (2016)	3.5
Infectious Disease and Food-Borne Illness			
% Children Age 19-35 Months Receiving Recommended Vaccines	not available at the county level	77.8% (2016)	91.30%
Pneumonia/Influenza Mortality Rate/100,000 Population	33.1 (2012-2016)	16.5 (2016)	13.5
Average Number of Critical Violations per Restaurant/Food Stand	not available	3.0 (2017)	5.5
Social Determinants of Health			
% People Living in Poverty	21.1% (2012-2016)	15.4% (2016)	12.50%
Four-Year HS Graduation Rate	88.9% (graduating 16-17)	86.5% (2016-17)	94.60%
% People Spending >30% Income on Rental Housing	50.7% (2012-2016)	46.9% (2016)	36.10%
Chronic Disease			
Cardiovascular Disease Mortality Rate/100,000 Population	213.9 (2012-2016)	214.1 (2016)	161.5
% Adults with Diabetes	8.7% (2013)	11.3% (2016)	8.60%
Colorectal Cancer Mortality Rate/100,000 Population	16.5 (2012-2016)	13.2 (2016)	10.1
Cross-Cutting			
Average Life Expectancy (Years)	76.1 (2014-2016)	78.0 (2016)	79.5
% Adults Reporting Good, Very Good, or Excellent Health	86% of 2018 survey respondents	81.7% (2016)	90.10%
% Non-Elderly (<65) Uninsured People	14.9% (2016)	12.2% (2016)	8.00%
% Adults Not Overweight or Obese	64% of 2018 survey respondents as reported; 26% based on height and weight reported	33.1% (2016)	38.10%

Source: Annual Report to the NC Medical Society, October 2018

COMMUNITY PRIORITIES

PRIORITY SELECTION PROCESS

After receiving the secondary data and primary data summaries from the Public Health Consultant, the Advisory Team was involved in a series of meetings to determine the community's health priorities. The importance of broad community involvement was emphasized and encouraged. The Advisory Team decided that the best way to select priorities would be to seek the community's input following a public review of the data. To this effect, the team scheduled a public *Health Summit*, at which participants would be asked to complete an issues prioritization ballot based on the information presented at the Summit. Prior to the Summit, the Public Health Consultant discussed the contents of her presentation with the Advisory Team.

A Prioritization Ballot was created for the Health Summit meeting, with printed instructions indicating that stakeholders should consider the following criteria before selecting their priorities:

1. **Magnitude:** How many persons does the issue/problem affect, either actual or potential?
2. **Seriousness of consequences:** What degree of disability or premature death occurs because of the issue/problem? What are the potential burdens to the community such as economic or social burdens, if the issue/problem is *not* addressed?
3. **Capacity for correcting or preventing:** Is the issue/problem amenable to the intervention? What resources of equipment, expertise, personnel or money are necessary to effect change? Are those necessary resources available in Wilkes County, or can they reasonably be acquired?
4. **Social and/or political will:** Is there likely to be sufficient local community and political support to address the issue or problem? Will the solution to the issue/problem require partnerships? Do these partnerships already exist in Wilkes County, or must they first be developed?

The Advisory Team decided to let Summit participants select up to ten issues or problems that they would like to see addressed over the next three years without requiring that any be ranked. The group felt strongly that there would be enough representation that only a few issues or problems would rise to the top. The team also decided to let the stakeholders have the prioritization ballot at the beginning of the Health Summit meeting. Providing the ballot at the beginning of the meeting would allow stakeholders to list or take notes on issues or problems as the data was being presented.

On October 30, 2018 the Advisory Team hosted the Health Summit, with 92 stakeholders and community member's present. A full list of Summit participants appears appended to this document (Appendix 4). During this meeting, the Public Health Consultant gave a PowerPoint presentation summarizing the secondary and primary data collected as part of the CHNA process. Following the data presentation participants were able to discuss the data with others and consult any of the Advisory Team members, or the Public Health Consultant, for further clarification. Before leaving the meeting, each participant was asked to return their ballot to an Advisory Team member.

PRIORITIES

After tabulating the prioritization ballots from the Health Summit and with further discussion with partners, the health department chose **four** priorities to address. The following were established as Wilkes County's health priorities for the next three years (2019-2021):

- Obesity and Chronic Disease
- Mental Health and Substance Abuse
- Access to Care
- Tobacco and Smoking

Each of the four selected priorities is discussed in detail below.

Obesity and Chronic Disease

Health Indicators

Obesity and overweight are precursors to several chronic diseases, some of which are prevalent in Wilkes County where they result in high mortality rates and numerous hospital admissions.

As cited previously in this report, according to CDC data the prevalence of diagnosed obesity in Wilkes County was 26.5% in 2013; and averaged 28.2% over the period from 2006 through 2013, and results from the 2018 Wilkes County Community Health Survey showed that almost 36% of respondents reported that they had been diagnosed as either overweight or obese. In addition, survey respondents were asked to report their height and weight, from which BMIs were calculated. Based on these calculations, 32% of respondents were overweight and 43% were obese.

Also as noted previously, diabetes, a chronic disease related to obesity, was the eighth leading cause of death overall in Wilkes County in 2012-2016, at which time the county diabetes mortality rate exceeded the state rate by 5% and had increased by 10% since 2005-2009. As previously cited, CDC data estimated the prevalence of diagnosed diabetes among adults age 18 and older in Wilkes County at 8.7% in 2013, with an average prevalence of 9.8% over the period from 2006 through 2013, and 19% of the respondents to the 2018 Wilkes County Community Health Survey reported having received a medical diagnosis of diabetes.

According to data made available to the CHNA consultant by Wilkes Medical Center, there were 445 emergency department (ED) discharges associated with a primary diagnosis of diabetes in 2015 through 2017, representing 0.6% of all ED admissions in that three-year period. Similarly, inpatient (IP) hospitalizations discharges associated with a primary diagnosis of diabetes accounted for 221 discharges, or 1.9% of all IP discharges over the same period.

Other chronic conditions, including heart disease, high cholesterol and high blood pressure (hypertensive disease) are also associated with obesity or at least with an unhealthy diet. As noted earlier in this report, heart disease was the second leading cause of death in Wilkes County in 2012-2016, and a significant fraction of respondents to the 2018 Wilkes County Community Health Survey reported they had been diagnosed with high cholesterol (30%) or hypertension/high blood pressure (35%). Wilkes Medical Center data for 2015 through 2017 showed that 860 ED discharges (1.1% of all ED admissions over the period) and 710 IP

discharges (6.0% of total IP discharges over the period) were associated with a primary diagnosis of heart disease.

Although not associated with obesity, chronic lung disease is a significant health problem in Wilkes County. For example, as cited previously, chronic lower respiratory disease (CLRD) was the third leading cause of death in the county in the 2012-2016 period, with a mortality rate 27% higher than the comparable rate statewide. According to Wilkes Medical Center data for 2015 through 2017, there were 1,552 ED discharges (2.0% of all ED discharges) and 492 IP discharges (4.2% of all IP discharges) associated with a diagnosis of CLRD. As noted in the earlier discussion of site-specific cancer rates, the mortality rate for lung cancer (a chronic condition as long as the patient lives) in Wilkes County has decreased over the past decade, but the lung cancer incidence rate has increased. Most experts agree that chronic lung disease, including cancer, is associated with smoking, a priority issue that will be discussed subsequently.

Specific Populations at Risk

The poor and uninsured. Obesity is sometimes—but not exclusively—associated with poverty, as the economically disadvantaged often do not have same access to healthy food and lifestyle choices as wealthier persons. Members of the community who lack health insurance are always at-risk for poor health outcomes, and the percent of the Wilkes County population under age 65 without health insurance in 2016 was 14.9%, or more than 8,000 persons. While this report offers no racially stratified data pertaining to the uninsured, it is likely that the Hispanic/Latino population in Wilkes County is also vulnerable because of traditionally high rates of uninsured and poverty in this group.

Males. As cited elsewhere in this report, mortality rates in Wilkes County for most chronic diseases are higher for males than for females. Heart disease and diabetes mortality rates for Wilkes County males exceed comparable mortality rates for females by approximately 81%. Total cancer mortality rates are 55% higher among males compared to females.

African Americans. While stable, racially-stratified diabetes mortality rates for African Americans in Wilkes County are not available, statewide the most recent diabetes mortality rate for African Americans was 2½ times the comparable rate for whites, and there is no reason to expect a lesser relative racial disparity in Wilkes County.

Children. As a behavior-related health outcome, obesity affects all cross-sections of society, but we do know that habits—good and bad—learned and practiced at a young age can make a difference, which would point to children as perhaps the population most vulnerable to obesity and its life-long effects. In 2015, Wilkes County 2-4-year olds and 5-11-year olds had higher rates of overweight and obesity compared to the state average.

Health Resources Available and/or Needed

Wilkes County YMCA. The Wilkes Family YMCA is active in the local community and offers a wide range of programs for the whole family including swim lesson, before and after school care and youth sports. The Y offers a comprehensive Wellness center with on- duty staff, group exercise programs, and Silver Sneakers classes for senior citizens. The Y is dedicated to social responsibility with efforts such as *Wilkes on Wheels*, a childhood obesity prevention program for under- served children in Wilkes County.

Food Pantries. Wilkes County has six food pantries, associated with Second Harvest Food Bank, that are accessed by low income families throughout the county. The food pantries also link their clients to a wide variety of community resources.

Wilkes County Schools. Wilkes public schools started to participate in the Community Eligibility Provision (CEP), a part of the Healthy, Hunger-Free Kids Act of 2010, during the 2014-15 school year and have continued it through the 2018-2019 school year. CEP allows elementary and middle schools in qualifying districts to serve all students one free breakfast and one free lunch each day the student is in attendance. Wilkes County Schools has also integrated the SPARK curriculum into all 13 elementary PE classes.

Wilkes County Schools continues to use **FitnessGram**. Grades K-8 will continue to collect BMI data and test physical fitness using the FitnessGram model and sends the information home to parents.

Brenner FIT. The Brenner FIT Academy is a six-month program designed to help families with children, ages 2-18, who have concerns about their child's weight and health. No doctor's referral necessary. If families have a concern about their child's weight and health, the family may join the program. The program lasts for six months, and while family is enrolled and participates in classes, they receive a family membership at the Y.

Mental Health and Substance Abuse

Health Indicators

As described in an earlier section of this report, utilization of LME mental health services by Wilkes County residents has increased over the past five years. While the actual number of persons with mental health needs in Wilkes County is not precisely known, 24% of respondents to the 2018 Wilkes Community Health Survey reported a personal diagnosis of depression (only one kind of mental health problem).

As reported elsewhere in this document, respondents to the 2018 survey consistently ranked mental health and substance abuse issues among the most urgent and impactful concerns in Wilkes County. Substance abuse ranked first among the community issues most affecting the quality of life in the county and respondents ranked "mental health concerns" third on the same list. Meth labs ranked as the environmental health issue most impacting the community. Substance abuse services and mental health and counseling services were the most commonly identified services needing improvement. Further, respondents identified substance abuse and anxiety/depression/stress as the first and third most impactful unhealthy behaviors in Wilkes County.

There were 19 providers physically located in Wilkes County listed in the 2019 Vaya Health LME/MCO Provider Directory; 29 mental health facilities were licensed by the state as of May 2018. As described previously, respondents to the 2018 Wilkes County Community Health Survey were asked where they might refer someone with a mental health or drug/alcohol problem, or someone considering suicide. Respondents answered the three questions quite differently, suggesting a nuanced understanding of both the varied needs inherent in each type of issue and the ways to meet those needs. In addition, around five-percent of the respondents said they "did not know" where to refer someone.

As noted previously, the fraction of all Wilkes Medical Center ED discharges attributable to mental health diagnoses (including substance abuse) currently is approaching 3%. Many of

these discharges likely represent a population unable or possibly unwilling to access other mental health providers, including those in the service network of the LME/MCO serving Wilkes County (Vaya Health). Of course, with the fraction of uninsured in Wilkes County at 19% and a poverty rate over 21%, it's likely that many who access the hospital ED instead of the "official" network of mental health practitioners do so because they cannot afford other than a provider of last resort.

According to data from NC SCHS, the unintentional poisoning mortality rate in Wilkes County, while only available for four periods, was more than double the state rate in all four periods and increased from 28.2 in 2010-2014 to 35.1 in 2012-2016. Unintentional poisoning includes any "noxious substance", such as narcotics and hallucinogens, unspecified drugs, medicaments, and biological substances, gases and vapors (73).

The Centers for Medicaid and Medicare Services publishes data describing opioid prescribing patterns among Medicare Part D prescribers. Between 2013 and 2016, an average of 68% of Part D prescribers across Wilkes County prescribed opioids, higher than both state and national averages (54% and 46%, respectively). While most Wilkes County prescribing rates are slightly lower than national and state comparators, the Hays-based zip code has higher prescribing rates for opioids and extended release opioids over all four years of available data (74).

The NC Opioid Action Plan, established in 2016 by NC DHHS in partnership with other agencies, publishes quarterly data relating to 13 measures they have identified as key indicators relating to the opioid crisis. Between 2016 and 2017, the number of unintentional opioid related deaths in Wilkes County halved from 26 to 13; the number of ED visits receiving an opioid overdose diagnosis increased, from 55 to 70. The number of opioid pills dispensed in Wilkes County decreased from 6.3 million in 2016 to 3.8 million in 2017, but current 2018 numbers do not indicate continued improvement. Compared to NC, Wilkes County had a higher percentage of patients with an opioid prescription receiving more than the recommended dosage in both 2016 and 2017, which can increase the risk for opioid use disorder and overdose. Similarly, the county had higher rates of patients with both opioid and benzodiazepine prescriptions on the same day, concurrent use of which can increase the risk of an overdose. Administrations of naloxone by EMS increased only slightly between 2016 and 2017 while community naloxone reversals remain few, suggesting either that the need for overdose reversals has not diminished or that access to the life-saving treatment has not improved. The number of buprenorphine prescriptions dispensed decreased between 2016 and 2017, while the number of uninsured individuals and Medicaid beneficiaries with an opioid use disorder served by treatment programs increased (75).

Specific Populations at Risk

The poor and uninsured. The uninsured and those in poverty are always at risk for poor outcomes to their mental health and substance abuse problems because of access issues. In addition, it is not uncommon for persons of any age burdened by economic and other life stressors to seek "relief" in alcohol or drugs. Access to mental health/substance abuse services in this group may be poor.

Youth and the elderly. Youth may initially experiment with drugs or alcohol for other reasons, including peer pressure, risk-taking, and escapism. Youth suffering from depression and other mental health problems may be especially reticent to share and discuss their problems with anyone for fear of being labeled "different", and parents are not always aware of warning signs. Consequently, youth are especially likely to suffer from undiagnosed and untreated mental

health problems. Many elderly persons were raised not to discuss or even recognize mental health problems and attach to them a stigma that prevents them from seeking needed care even on their own behalf. The elderly may fall into prescription drug abuse accidentally, resulting in severe illness or death.

Whites. Neither African Americans nor Hispanics composed large percentages of the ED admissions for substance abuse; the vast majority were whites.

Health Resources Available and/or Needed

Wilkes County Schools has established substance abuse prevention teams in three middle schools and four high schools and is providing evidence-based curriculum and education to the Turning Points Alternative Learning Program within the Wilkes County School system. Prevention Teams and Turning Points focus on intervention and prevention of substance abuse among youth in Wilkes County, and continuously strategize and formulate more efficient ways to combat the issue.

A Project Lazarus Wilkes Youth Coalition (PLWYC) was formed by community members wishing to prevent prescription medication misuse and abuse and opioid poisonings among youth and young adults. Each coalition sector is given assistance in providing and developing educational materials for use within the sector they serve.

Access to Naloxone/Narcan Rescue Kits and training is available to those wishing to reverse overdose. Working as an antidote, naloxone blocks opioids from the brain's receptors, allowing overdose victims to be revived. Naloxone must be prescribed by a healthcare professional (doctor, nurse practitioner, PA, or through the standing county order). Those who are uninsured or underinsured can receive a Naloxone auto injector at no cost thanks to grants and donations. Medication disposal drop boxes, known as Project Pill Drop (PPD) is a service offered in five locations within the community. The boxes are permanent medication disposal drop boxes within law enforcement agencies and pharmacies. Using a medication disposal drop box keeps medications out of landfills and water systems and diverts misuse.

The Lazarus Recovery Services (LRS) program is a peer-led recovery support program which combines case management, community resource navigation, crisis intervention, group facilitation, and family involvement. LRS is available for individuals suffering from a substance use disorder (SUD)/disease of addiction and their families and loved ones. The LRS program partners individuals seeking recovery with a Lazarus Peer Guide (LPG) to help navigate the recovery journey. LPGs are extensively trained and certified, have a desire to save and help others, and are themselves in recovery from the disease of addiction. Additionally, *Project Lazarus* offers training to community sectors on providing support mechanisms within their population groups to help erase the elements of stigma attached to substance use disorders and the disease of addiction.

Access to Care

Health Indicators

One of the best predictors of likely difficulty in accessing health care is being uninsured. As noted, many times previously, approximately 15% of the Wilkes County population under age 64 lacked health insurance in 2016, a large proportion of potential access problems. While poverty (which in Wilkes County currently stands at 21%) can also be a predictor, there exist safety net

mechanisms (for example Medicaid and Health Choice) to help the poor overcome economic barriers to access. Unfortunately, these safety nets do not always work where providers limit the number of Medicaid (and sometimes Medicare) or Health Choice assignments they will accept, or where services and providers are out of reach of potential patients due to geographical and transportation barriers. Approximately half of respondents to the 2018 Wilkes County Community Health Survey reported having a problem accessing health care recently; among them the most frequently cited barriers were cost (i.e., deductible or co-pay) or a total lack of insurance. Approximately 14% of respondents reported that their insurance didn't cover the health care that was needed.

Compared to the state average, Wilkes County had lower ratios of health professionals per 10,000 population for physicians, dentists, registered nurses, and pharmacists in 2017. With 21% of active physicians and dentists over the age of 65 in 2017, access to care likely will not improve without the addition of new providers.

Participants in the 2018 Wilkes County CHNA Stakeholder Survey reported increased healthcare needs and monetary challenges faced by their clients when accessing care. Respondents to the 2018 Wilkes County Community Health Survey ranked "economic issues (unemployment, poverty, lack of higher paying jobs)" second among the most important community issues affecting quality of life in Wilkes County. Thirty percent of respondents chose "affordability of health services" as a major issue, and 16% identified "lack of/inadequate health insurance" among the top three issues in the county.

Specific Populations at Risk

The poor and uninsured. Limited access to healthcare is specifically related to poverty and lack of insurance. While safety nets do exist to help the poor and uninsured, access to medical and dental care can be complicated by the often-limited appointment availability with an already small number of providers.

Rural populations. According to the results of the Stakeholder Survey, transportation is one of the most significant barriers faced by Wilkes County residents who are trying to access services of all kinds. While efforts are reportedly being made to address some transportation concerns, stakeholders feel that more needs to be done to meet the needs of rural populations in this geographically large county.

Medicaid clients. As noted previously, Medicaid clients may find that there are limited providers who accept their insurance, and working people, especially those who work multiple jobs or exclusively day-time shifts or have no weekday time off may find limited providers who offer appointments at hours they can seek services.

Immigrant populations. Wilkes County is home to a significant number of foreign workers, especially Hispanics and Burmese, for whom the lack of culturally-appropriate services in their native language presents a significant access barrier.

African Americans. There is evidence in utilization data for Wilkes Medical Center that African Americans use the ED in a proportion nearly twice their representation in the overall population of Wilkes County (8.3% vs. 4.3%). It is unclear whether this difference is attributable or not to a lack of access, lack of a regular physician or lack of a medical home.

Health Resources Available and/or Needed

The primary health care resource in Wilkes County is Wilkes Medical Center. Aside from Wilkes Medical Center there are a number of services available to community members seeking care.

Wilkes County Health Department (WCHD). WCHD offers a multitude of services to uninsured adults and children and those receiving Medicaid. The health department offers extended clinic hours to meet community needs. Services at the WCHD include family planning, breast and cervical cancer screening, pregnancy care management, pharmacy, immunizations, communicable and sexually transmitted disease management, environmental health and vital records keeping. Services for maternal and child health include care coordination for children, mobile expanded school health (inclusive of immunizations, sports physicals, sick and injury care, counseling and support), newborn/post-partum services and services for women, infants and children (WIC). The Diabetes and Nutrition Center offers diabetes self-management education and medical nutrition therapy to community members and offers free classes to those who are uninsured/underinsured.

Wilkes Community Health Center (WCHC). WCHC is a public entity federally qualified health center (FQHC) that operates out of the health department. WCHC offers a multitude of services to community residents. The health center offers extended clinic hours to meet community needs. Services at the WCHC include adult health, child health, family planning, immunizations, behavioral health and other wrap around services. The FQHC enables Wilkes County to serve the underinsured/uninsured population, offer a sliding fee scale, provide comprehensive services, have an ongoing quality assurance program, and have a governing board of directors made up of a majority of patients.

The **Wilkes Public Health Dental Clinic** provides private practice-type services to patients with Medicaid with sliding scale fees for those who qualify.

Other agencies offering care for underinsured/uninsured include Care Connection Pharmacy, Hugh Chatham Family Medicine Boomer, Hugh Chatham Family Medicine Mountain View, and Foothills Free Medical Clinic.

Wilkes County also has two urgent care facilities: Fast Med and Urgent Care at West Pak. Residents who live in the eastern part of the county may choose to access the urgent care facilities located in Surry County: Hugh Chatham Express Care, and Mid-Atlantic QuickCare Urgent Care, both located in Elkin, NC.

Effective economic development—including affordable housing—that reaches even the “minimally prepared” was identified by community stakeholders as a “lifts all boats” way to address economic need in Wilkes County. The stakeholder group also repeatedly cited a need for a county-wide transportation system with regular routes and recommended that service agencies try to reach further into the rural parts of the county with satellite offices and mobile units.

Further, there is a need to expand or enhance *existing* programs to provide care at a reduced cost for patients with limited financial means who are un- or under-insured.

Finally, there is a general need for community organizations to increase awareness of available healthcare resources within schools, food pantries, churches, and media venues.

Tobacco and Smoking

Health Indicators

The association of smoking with health consequences is now firmly established and is accepted by most of the public. As a result, tobacco-quitting behaviors have increased in recent years. For example, 20% of the respondents to the 2018 Wilkes County Community Health Survey reported that they once smoked but had quit, and another 5% said they are actively trying to quit (54). Nevertheless, smoking remains prevalent in Wilkes County, where 13% of survey respondents say they currently smoke and do *not* identify themselves as “trying to quit”. Some of the specific health consequences of smoking are discussed above, in the Obesity and Chronic Disease section.

Specific Populations at Risk

Pregnant Women. Alarming high percentages of pregnant women in the county smoke during their pregnancies and the proportion has not improved much over time. As reported previously, in 2016 almost 19% of Wilkes County pregnancies involved women who smoked while pregnant, a figure 111% higher than the comparable average statewide. These women, some of whom may believe the adage that smoking during pregnancy prevents excess weight gain, are at risk for adverse health outcomes for themselves and/or their babies.

Males. Analysis of gender-stratified 2018 Wilkes County Community Health Survey results shows that a far greater proportion of males than females report being “current smokers”: 10% of females compared to 22% of males. A higher proportion of females than males reported that they “never used tobacco” (66% vs. 51%). On the other hand, a higher proportion of males than females reported that they had quit using tobacco (23% vs. 19%), perhaps because a higher proportion of males than females were smokers in the first place (54). There were too few African Americans and Hispanics in the survey respondent pool to yield reliable stratified results regarding smoking.

Youth. Although there is no current YRBS data available for Wilkes County, data from other counties shows that young people begin to smoke at ever younger ages. This fact is further complicated by the advent of electronic nicotine-delivery systems, which are advertised to appeal to youth.

Health Resources Available and/or Needed

Currently Wilkes County offers access to the free North Carolina Quitline.

Tobacco Free Policies. Wilkes Community College amended their tobacco-free policy to specifically include electronic cigarettes as well. Wilkesboro parks and the greenways throughout the county are tobacco-free. Both of the farmers markets are tobacco free as well. Through the efforts of the Community Transformation Grant (CTG) Project, Northwest Regional Housing Authority adopted a multi-unit housing smoke-free policy. In addition, we had four other multi-unit housing complexes go smoke free. As of July 1, 2018, all HUD housing is now smoke-free inside the units.

Clinical Effort Secondhand Smoke Exposure (CEASE) Interventions. CEASE aims to reduce tobacco use and second-hand smoke and may in the future include a focus on increasing access and availability of nicotine replacement therapies (NRTs) or evidence-based programs among pediatricians to promote tobacco cessation in parents or other adults who

smoke in households where children live. Additionally, WCHD could provide training to local medical offices and healthcare providers about “5 A’s”.

Wilkes County Schools. Wilkes County Schools specifically cite electronic cigarettes in their tobacco-free campus policy. Starting in the fall of 2019, all middle school and all 9th graders will start the Catch My Breath curriculum.

In addition, Wilkes County Health Department continues to work with the **Northwest Regional Tobacco Manager** to host 5A trainings to providers and community members when requested. Wilkes County Health Department also has trained 2 health educators, 4 school nurses, and 1 community member to be Certified Tobacco Treatment Specialist.

In the arena of secondhand smoke reduction, it may be necessary to encourage more public places to establish and enforce smoke-free or tobacco-free policies. This would include more efforts to connect with local government to address and adopt smoke-free policies.

NEXT STEPS

In March, following submission of this report, Wilkes County Health Department, Wilkes Medical Center, and the Health Foundation, Inc. will hold several listening sessions or conversation cafes. The conversation cafes will serve a dual purpose in which community partners, members, and stakeholders receive information about the CHNA, while being engaged to identify strategies and solutions for addressing the four health priorities. At the listening sessions various staff will provide a brief overview of the results, with an emphasis on Chronic Disease and Obesity, Mental Health and Substance Abuse, Tobacco and Smoking, and Access to Care. Following the presentation, participants will be able to suggest enhancement of current programs, new evidenced based strategies, and prospective partnerships.

Suggestions from the meeting will be recorded by a facilitator and note taker for each group, and subsequently consolidated into a set of priority recommendations to help the health department construct their community health improvement plan (CHIP).

In addition to the Community Health Summit results, the health department will utilize Healthy North Carolina 2020 as an additional resource when selecting their evidence based strategies for each health priority.

The health department will continue to analyze the data and context of each health priority to ensure a proper selection of improvement activities. Once the CHIP has been finalized, it will be distributed to existing coalitions for input and buy-in for each health priority.

Once implementation of the CHIP has begun, the group will continue to monitor and collect health data, and adjust the plan as needed.

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Advisory Team

These individuals met and discussed our process and progress the most frequently. This team assisted with the development of the surveys as well as prioritizing health issues based on all the data collected.

Name	Agency
Ann Absher	Wilkes Health
Arlen Rash	Wake Forest Baptist Health Wilkes Medical Center
Barbara Overby	Wilkes Health
Barry Wald	Wake Forest Baptist Health Wilkes Medical Center
Heather Murphy	Health Foundation, Inc.
Holly Norman	Health Foundation, Inc.
Jared Belk	Wilkes Health
Jackie Johnson	Wilkes Health
Jennifer Wages	Health Foundation, Inc.
Rachel Willard	Wilkes Health
Susan Bachmeier	Wake Forest Baptist Health Wilkes Medical Center
Tammy Love	Wake Forest Baptist Health Wilkes Medical Center

Steering Committee

The primary role of this group was to assist with local data collection and assist with review of the surveys.

Ann Absher	Wilkes County Health Department/Wilkes Community Health Center
Arlen Rash	Wake Forest Baptist Health Wilkes Medical Center
Barbara Overby	Wilkes County Health Department/Wilkes Community Health Center
Barry Wald	Wake Forest Baptist Health Wilkes Medical Center
Heather Murphy	Health Foundation, Inc.
Holly Norman	Health Foundation, Inc.
Jared Belk	Wilkes County Health Department/Wilkes Community Health Center
Jackie Johnson	Wilkes County Health Department/Wilkes Community Health Center
Jennifer Wages	Health Foundation, Inc.
Rachel Willard	Wilkes County Health Department/Wilkes Community Health Center
Susan Bachmeier	Wake Forest Baptist Health Wilkes Medical Center
Tammy Love	Wake Forest Baptist Health Wilkes Medical Center
April Marr	Wilkes County Schools
Chris Skabo	Wilkes County Schools
Chris Huffman	Wilkes County Finance Officer
David Carson	Wilkes County Sheriff's Office
Rosie Summers	Wilkes County Sheriff's Office
Susan Ledbetter	Wilkes County DSS
Timothy Pennington	Wilkes County EMS
Julia Turpin	Wilkes County Library

Collaborating Agencies

Collaboration between Wilkes County Health Department, WFBH-Wilkes Medical Center, the Health Foundation, Inc., and other local partners made this assessment possible. Many collaborators spent numerous hours attending meetings, promoting and distributing the community health survey, participating in stakeholder interviews, and attending consultant presentations. Collaborators in the 2018 CHNA process in Wilkes County include:

- Wilkes County Health Department/Wilkes Community Health Center
- Wake Forest Baptist Health Wilkes Medical Center
- Health Foundation, Inc.
- Wilkes County Schools
- Wilkes County Partnership for Children
- Wilkes Community College
- Wilkes County Sheriff's Department
- Wilkes Transportation Authority
- Wilkes County YMCA
- Jodi Province Counseling
- Wilkes County Cooperative Extension
- NC Works
- Brame Huie Pharmacy
- Wilkes Chamber of Commerce
- Town of North Wilkesboro
- Wilkes Pregnancy Care Center
- Second Harvest Food Bank
- Samaritan Kitchen
- Pilgrim Baptist Church
- Wilkes County Department of Social Services
- Community members
- Wilkes County Daymark
- Vaya Health LME/MCO
- BROCC Headstart
- Project Lazarus
- Western Youth Network
- Our House/Child Abuse Prevention Team
- Northwest Regional Housing Authority
- North Wilkesboro Housing Authority
- Wilkes County United Way
- Wilkes County Communities in Schools
- Wilkes County Library
- Wilkes County Public Health Dental Clinic
- Wilkes County Emergency Management Services
- Wilkes County Senior Services
- Area on Aging Region D

2018
Wilkes County
Community Health Assessment

***Summary of Secondary Data,
Community Health Survey and
Stakeholder Survey Results***

October 30, 2018



Purpose of the Community Health Assessment

- Describe the health status of the community.
- Create a report that will serve as a resource for the Wilkes County Health Department, the Health Foundation of Wilkes, Wake Forest Baptist Health Wilkes Medical Center, and other community organizations.
- Provide direction for the planning of disease prevention and health promotion services and activities.



Contributing Viewpoints

Secondary Data	Hospital Data	Citizen and Stakeholder Opinion
<ul style="list-style-type: none">-Demographic-Socioeconomic-Health-Environmental	<ul style="list-style-type: none">-Emergency Department discharges-Inpatient discharges	<ul style="list-style-type: none">-Community health survey-Stakeholder survey



We Take Special Notice When...

- Wilkes County statistics deviate from North Carolina or peer county statistics, or some other “norm”.
- Trend data show significant changes over time.
- There are significant age, gender, or racial disparities.



Definitions and Symbols

- **Arrows**

- Arrow up (▲) indicates an increase.
- Arrow down (▼) indicates a decrease.

- **Color**

- **Red** indicates a “worse than” or negative difference
- **Green** indicates a “better than” or positive difference
- **Blue** indicates a likely unstable rate or difference based on a small number of events; figures in blue should be used with great caution.

- **Bold Type**

- Indicates the higher value of a pair, or the highest value among several.



Data Caveats

- Data sources are not routinely presented among these slides, but are thoroughly cited in the narrative report.
- Most secondary data originated from authoritative sources in the public domain (e.g., US Census Bureau, NC State Center for Health Statistics).
- Most data for Wilkes County is compared also to data for Surry County (a state-sanctioned peer county) and data for NC as a whole.
- All secondary data were mined at a point in time in the recent past, and may not represent present circumstances. Numbers, entity names, program titles, etc. that appear in the data may no longer be current.

Demographic Data



General Population Characteristics

- Wilkes County population only slightly more females than males.
- Median age of Wilkes County females is 2.2 years older than comparable median age for males.
- Median age of the Wilkes County population is 5.8 years older than NC average

2016 US Census Bureau

Location	2016 ACS Estimates							
	Total Population	Number Males	% Population Male	Median Age Males	Number Females	% Population Female	Median Age Females	Overall Median Age
Wilkes County	68,888	33,902	49.2	43.1	34,986	50.8	45.3	44.1
Surry County	72,767	35,422	48.7	41.2	37,345	51.3	44.5	43.0
State of NC	9,940,828	4,834,592	48.6	36.8	5,106,236	51.4	39.7	38.3



Population Growth

- Throughout the period cited, growth rates in NC far exceeded growth rates in Wilkes County.
- The recent decrease in rate of growth in Wilkes County is expected to continue through the end of the decade before recovering slightly.

Percent Population Growth		
Decade	Wilkes County	State of NC
1980-1990	1.3	12.8
1990-2000	10.5	21.3
2000-2010	5.6	18.5
2010-2020	3.2	11.4
2020-2030	4.8	10.7

Minority Populations

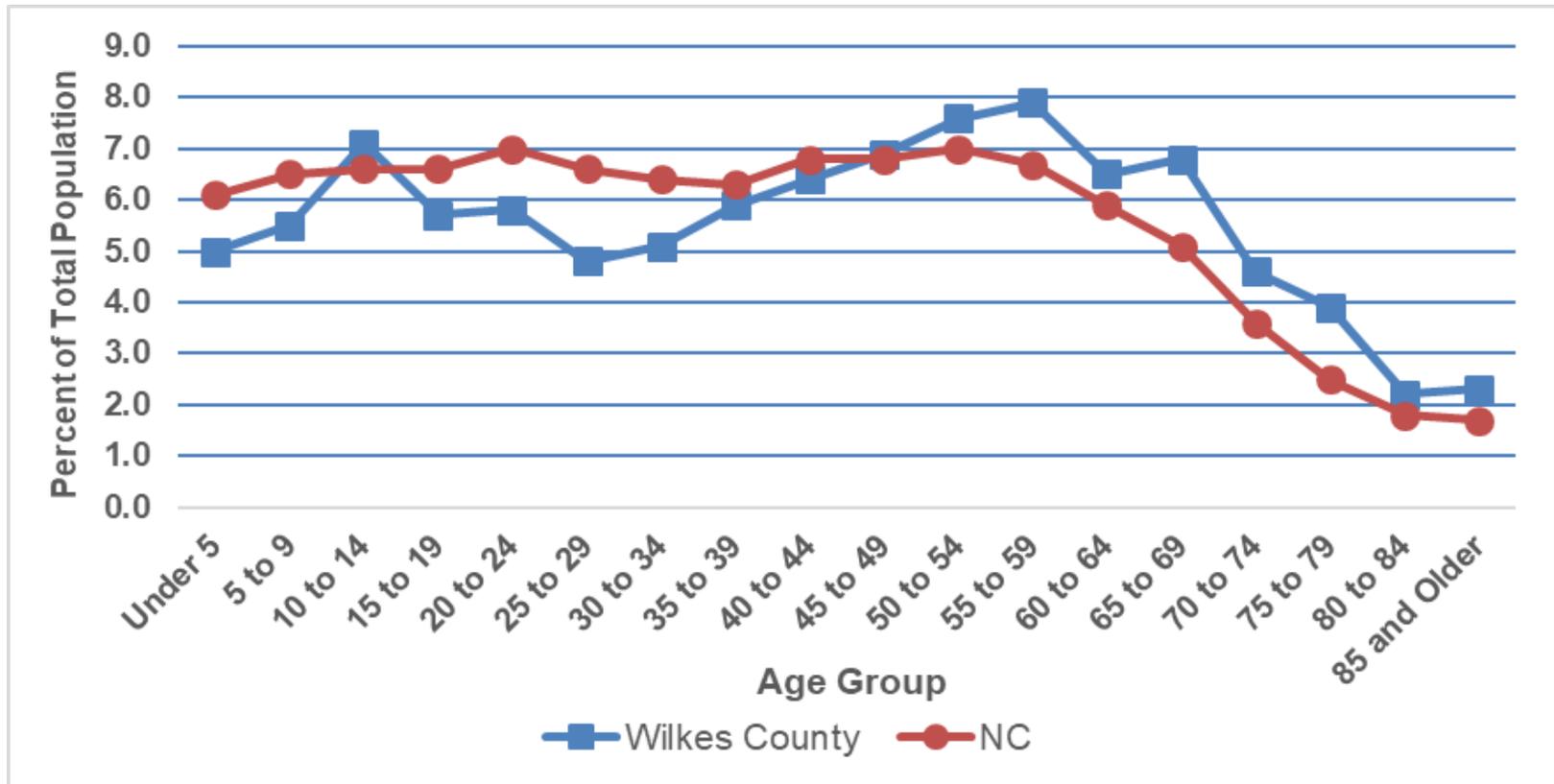
- Wilkes County is less diverse than North Carolina, with minorities comprising less than 10% of the total county population.

Population Distribution by Race/Ethnicity 2016 ACS Estimates

Location	Percent of Overall Population						
	White	Black	AI/AN	Asian	Other	Multiple Races	Hispanic
Wilkes County	91.2	4.3	0.2	0.6	2.3	1.5	5.9
Surry County	92.0	3.7	0.4	0.7	1.6	1.6	9.9
State of NC	69.2	21.5	1.2	2.7	3.0	2.4	8.9

Population Age Distribution

- Compared to NC, Wilkes County has lower proportions of most categories of people younger than age 44, and higher proportions of people in all categories older than age 44.



Growth of the Elderly Population

- In 2016 the population of persons age 65 and older in Wilkes County was 13,672.
- The population in every major age group age 65 and older in Wilkes County is projected to increase between 2010 and 2030.
 - **Age 65-74:** by 50% (to 10,259)
 - **Age 75-84:** by 87% (to 6,749)
 - **Age 85+:** by 76% (to 2,384)
 - **Overall Age 65+:** by 65% (to 19,392)



Socioeconomic Data



Income

In Wilkes County:

- 2016 Per Capita Personal Income = \$20,145
 - ▲ \$653 since 2014
 - \$6,634 **below** NC average
- 2016 Median Household Income = \$34,846
 - ▼ \$183 since 2014
 - \$13,410 **below** NC average
- 2016 Median Family Income = \$46,450
 - ▲ \$4,367 since 2014
 - \$13,207 **below** NC average

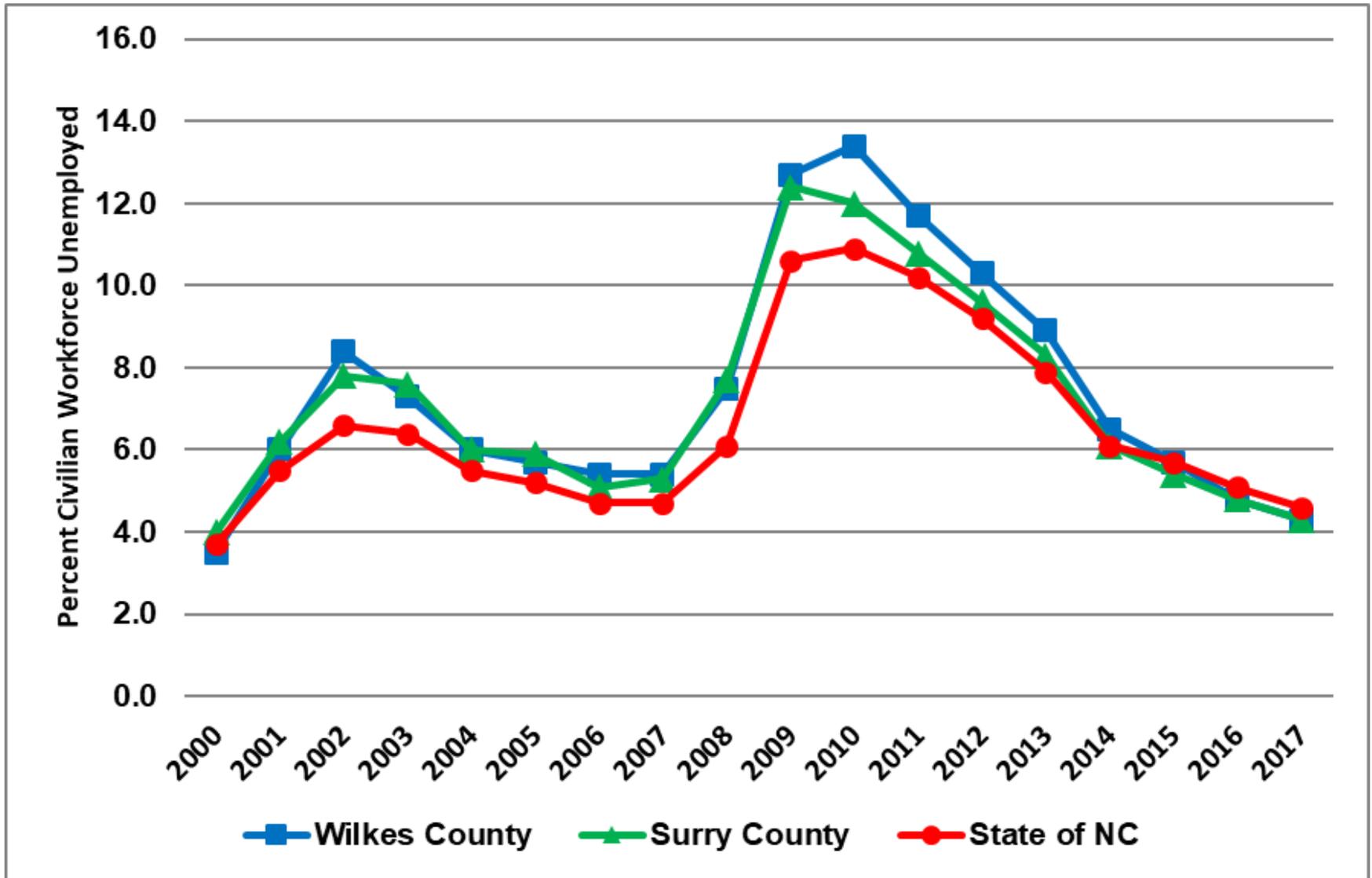


Employment

- As of the end of 2016, the three employment sectors in Wilkes County with the largest proportions of workers (and average weekly wage):
 - Manufacturing: 20.45% of workforce (\$702)
 - Retail Trade: 12.98% of workforce (\$479)
 - Health Care and Social Assistance: 11.72% of workforce (\$665)

In 2016 the average weekly wage for all 20 major employment sectors in NC was \$1,034, compared to \$677 in Wilkes County, or a deficit of \$357/week for the county. This computes to an annual deficit of \$18,564.

Annual Unemployment Rate



Overall Poverty Rate Trend

- According to US Census Bureau figures, the overall poverty rate (100% level) in Wilkes County was higher than the comparable state and Surry County rates throughout the period cited.

Location	Percent of All People in Poverty				
	2008-2012	2009-2013	2010-2014	2011-2015	2012-2016
Wilkes County	22.4	22.7	24.3	23.3	21.1
Surry County	18.3	19.9	19.8	19.7	17.9
State of NC	16.8	17.5	17.6	17.4	16.8

Poverty and Race

- The total poverty rate in Wilkes County decreased 7% between 2009-2013 and 2012-2016, while the total poverty rate in NC decreased 4%.
- Over the same period, the poverty rate among whites in Wilkes County decreased 5%; the poverty rate among blacks in the county decreased 16%, and the rate among Hispanics decreased 19%.
- In 2012-2016 the poverty rate among Hispanics in Wilkes County was more than twice the rate among whites.

Percent in Poverty

Location	2009-2013					2012-2016				
	Total No. in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty	% Hisp/Lat in Poverty	Total No. in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty	% Hisp/Lat in Poverty
Wilkes County	15,497	22.7	20.4	30.9	48.2	14,278	21.1	19.3	26.1	39.2
Surry County	14,383	19.9	18.1	40.4	44.5	12,801	17.9	16.7	33.7	34.6
State of NC	1,643,389	17.5	13.3	27.6	34.0	1,631,704	16.8	13.0	26.1	31.5



Poverty and Age

- In Wilkes County, as elsewhere, children suffer disproportionately from poverty.
- In 2012-2016 in Wilkes County the estimated poverty rate among children under age 18 was 39% higher than, and the rate among children under 5 was 58% higher than, the overall county poverty rate.
- Poverty in the county decreased between 2009-2013 and 2012-2016 overall and for youth. It increased slightly among the elderly.

Percent in Poverty (100% Level)

Location	2009-2013				2012-2016			
	Total % in Poverty	% Related Children Under 5 in Poverty	% Related Children Under 18 in Poverty	% Adults 65 or Older in Poverty	Total % in Poverty	% Related Children Under 5 in Poverty	% Related Children Under 18 in Poverty	% Adults 65 or Older in Poverty
Wilkes County	22.7	39.3	33.0	13.3	21.1	33.4	29.4	13.7
Surry County	19.9	34.3	27.5	15.4	17.9	28.1	24.0	12.9
State of NC	17.5	29.1	24.6	10.0	16.8	27.3	23.9	9.7

Housing Costs

- For 2012-2016, the estimated median monthly mortgage cost among Wilkes County homeowners = \$990 (▼ \$31 since 2009-2013).

\$253 less than the NC median

- For 2012-2016, the estimated median monthly rent among Wilkes County renters = \$593 (▲ \$20 since 2009-2013).

\$197 less than the NC median

In Wilkes County for 2012-2016, approximately 51% of renters and 30% of mortgage-holders lived in a household paying > 30% of household income for housing. The comparable NC figures were 49% and 28%.

Households

- Wilkes County statistics on household size are similar to statistics for NC as a whole except that there is a 34% higher percentage of one-person households in the 65-and-older age group in Wilkes County than in the state.

Household Characteristics

Location	Total No. Households¹	Average Persons per Household	% Householders Living Alone	% Households Living Alone ≥Age 65
Wilkes County	27,583	2.46	28.9	13.8
Surry County	28,837	2.49	28.2	13.5
State of NC	3,815,392	2.54	28.2	10.3

Single-Parent Families

- Of the 27,583 households in Wilkes County in 2016, 6,810 (25%) have children under the age of 18. Of these:
 - 71% are married couple households (NC = 66%)
 - 9% are headed by a male householder; no wife present (NC = 8%)
 - 20% are headed by a female householder; no husband present (NC = 26%)

Location	Total Households	Married Couple Family Households		Male Householder (no wife present) Family Households		Female Householder (no husband present) Family Households	
		Total Households	with own children <18	Total Households	with own children <18	Total Households	with own children <18
		Number	Number	Number	Number	Number	Number
Wilkes County	27,583	14,635	4,865	1,384	604	2,651	1,341
Surry County	28,837	15,437	5,189	1,335	509	3,007	1,506
State of NC	2,815,392	1,833,772	706,208	169,547	85,557	512,019	284,537

Grandparents Financially Responsible for Grandchildren

- In Wilkes County in 2016, over 975 grandparents are responsible for grandchild(ren) under age 18. Of these grandparents:
 - The vast majority (96%) are white
 - 38% have some kind of disability
 - 46% live below the poverty level

Location	# Grandparents Living with Own Grandchildren (<18 Years)	Grandparent Responsible for Grandchildren (under 18 years)*						
		#	%	White	Black/ or African-American	Hispanic/ Latino	With any Disability	Below the Poverty Level
Wilkes County	1,553	978	63.0	96.4	1.6	6.2	38.3	46.3
Surry County	1,383	718	51.9	93.2	4.9	0.0	36.5	19.9
State of NC	210,039	96,671	46.0	58	34.4	6.2	28.2	23.9

Educational Attainment

- Among residents age 25 or older, in 2016, compared to the NC average, Wilkes County had:
 - **69% higher** percentage with less than a 9th grade education
 - **25% higher** percentage with a terminal high school (or equivalency) diploma
 - **52% lower** percentage with bachelor's degree or higher



Educational Proficiency and Investment

- In SY2016-2017, compared to the NC average, Wilkes County had:
 - **lower** proficiency on EOG reading tests and **higher** proficiency on EOG math tests among 3rd graders
 - Slightly **lower** proficiency on EOG reading and math tests among 8th graders
 - **12% higher** HS drop-out rate
 - **3% higher** cohort graduation rate
 - **2% lower** total average per pupil expenditure



School Enrollment

- Enrollment in Wilkes County schools fluctuated over the period cited, but was 2.6% lower in SY2016-17 than in SY2012-13.

Location	Number of Students				
	SY2012-13	SY2013-14	SY2014-15	SY2015-16	SY2016-17
Wilkes County Schools	10,013	10,161	10,110	9,858	9,752
Surry County Schools	8,527	8,607	8,522	8,418	8,235
State of NC	1,467,297	1,493,980	1,498,654	1,493,809	1,486,448

Crime and Safety

Index Crime Rate

- The index crime rate in Wilkes County was lower than the comparable NC average in every year cited.
- The index crime rate in Wilkes County fell steadily over the period cited.
- In 2016 the index crime rate in Wilkes County was the lowest in five years.

Index Crime Rate Trend

Location	Crimes per 100,000 Population				
	2012	2013	2014	2015	2016
Wilkes County	3118.9	2733.5	2445.7	2002.8	1861.1
Surry County	3377.9	3241.1	3297.2	2893.9	3001.0
State of NC	3770.6	3506.2	3285.5	3174.3	3154.5

Crime and Safety

Number of Index Crimes

Type of Crime	Number of Crimes				
	2012	2013	2014	2015	2016
Violent Crime	161	148	120	127	145
<i>Murder</i>	2	6	3	4	3
<i>Rape</i>	7	4	4	10	9
<i>Robbery</i>	22	22	10	10	16
<i>Aggravated Assault</i>	130	116	103	103	117
Property Crime	2,007	1,753	1,564	1,271	1,150
<i>Burglary</i>	620	571	499	365	339
<i>Larceny</i>	1,320	1,115	1,003	852	762
<i>Motor Vehicle Theft</i>	67	67	62	54	49
Total Index Crimes	2,168	1,901	1,704	1,398	1,295

- *Aggravated assault* is the purposeful use of force, often involving a weapon, to inflict bodily harm.
- *Larceny* is theft of property without the use of force.

Crime and Safety

- Of 15,522 **registered sex offenders** in NC in May 2018, **163** lived in Wilkes County.
- **143 clandestine methamphetamine lab** busts took place in Wilkes County over the period 2005-2013, most of them in 2012 and 2013. (This old state data may be superseded by more recent local data.)
- As of 2017 there were **no gangs** reported in Wilkes County, although the county is deemed “at risk” for gang activity because it is on an Interstate corridor or adjacent to one or more counties with known gang activity.



Juvenile Crime

- Between 2012 and 2017 the *number* of complaints of **undisciplined** youth (ages 6-17) in Wilkes County ▼ 16%, and the *rate* ▼ 13%.

Undisciplined refers to disobedience beyond disciplinary control of parent/guardian (e.g., truancy, vagrancy, running away from home for more than 24 hours).

- Over the same period the *number* of complaints of **delinquent** youth in the county ▲ 3%, and the *rate* ▲ 9%.

Delinquency refers to acts committed by youths that would be crimes if committed by an adult.

- 19 Wilkes County juveniles were detained in 2012; 22 were detained in 2017.

Domestic Violence

- The number of individuals filing domestic violence claims in Wilkes County fluctuated dramatically over the period cited, but averaged 608 annually over that six-year period.

Location	No. of Individuals Filing Complaints ("Clients")					
	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FY2016-17
Wilkes County	580	869	712	816	446	225
Surry County	57	681	482	519	897	1,095
State of NC	51,563	57,345	55,274	56,664	48,601	51,074

- The domestic violence shelter serving Wilkes County was full on 69 days in FY2016-2017.



Sexual Assault

- The number of complaints of sexual assault in Wilkes County fluctuated dramatically over time, but averaged 31 annually over the period cited.
 - Of the 18 complaints of sexual assault filed in FY2016-2017, 10 were for adult rape and 4 involved child sexual assault.
 - Of the 18 complaints, 8 involved a relative of the victim and 4 involved an acquaintance.

Location	No. of Individuals Filing Complaints ("Clients")					
	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FY2016-17 *
* Wilkes County	29	58	39	14	30	18
Surry County	n/a	11	9	18	10	32
State of NC	13,214	12,971	13,736	13,655	10,981	9,453

* Wilkes County submitted partial data in FY2016-17



Child Maltreatment

- The numbers of children subject to abuse, neglect, or abuse and neglect in Wilkes County have fluctuated over time. Neglect only cases are the most common type.

Category	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Total No. of Findings of Abuse, Neglect, Dependency	33	35	63	40	34	35
No. Substantiated ¹ Findings of Abuse and Neglect	2	6	16	13	5	2
No. Substantiated Findings of Abuse	0	2	2	1	0	3
No. Substantiated Findings of Neglect	24	26	37	23	25	30
No. Substantiated Findings of Dependency	7	1	8	3	4	0
Services Needed	54	64	38	41	39	64
Services Recommended	50	53	42	39	27	21
No. Unsubstantiated Findings	77	57	99	156	144	81
Services Not Recommended	249	210	227	211	194	215

¹ A "substantiated" report of child abuse, neglect or exploitation indicates that the investigation supports a conclusion that the subject child(ren) was/were abused, neglected, or exploited.



Health Resources



Health Insurance

- The percent uninsured in Wilkes County decreased in all age groups each year between 2014 and 2016. Statewide, the percent uninsured decreased or remained the same in all groups every year.

Percent of Population Without Health Insurance, by Age Group

Location	2014			2015			2016		
	0-18	19-64	0-64	0-18	19-64	0-64	0-18	19-64	0-64
Wilkes County	5.8	22.5	18.1	5.6	19.6	15.9	4.9	18.5	14.9
Surry County	7.2	22.9	18.6	6.1	19.6	15.9	5.1	18.7	15.0
State of NC	5.5	18.9	15.2	4.6	16.2	13.0	4.7	15.1	12.2

- The age group 0-18 tends to have a lower percentage of uninsured than the 19-64 age group, due partly at least to NC Health Choice.



Medicaid Eligibility

- The total number of people in Wilkes County eligible for Medicaid increased annually from 2015 through 2017.
- The programs with the largest numbers of eligibles were TANF (AFDC), Infants & Children, and Disabled.

Wilkes County Medicaid-Eligibles by Program Area

Wilkes County	Aged	Disabled	TANF (AFDC) Under 21	TANF (AFDC) 21 and over	Pregnant Women	Family Planning	Infants and Children	MCHIP	County Total	CHIP
Annual Unduplicated 2017	1,441	2,880	4,119	1,944	284	428	3,264	1,175	16,975	1,030
Annual Unduplicated 2016	1,491	2,826	3,814	1,991	329	262	3,642	1,263	17,102	1,005
Annual Unduplicated 2015	1,443	2,774	2,876	1,928	353	129	4,465	1,283	16,745	927

Note that smaller programs are not listed in the table.



Health Care Practitioners

- 2017 ratios of active health professionals per 10,000 population were **lower** in Wilkes County than NC for:
 - MDs: **10.21** (NC=**23.78**)
 - Dentists: **1.98** (NC=**4.98**)
 - Registered Nurses: **64.51** (NC=**100.68**)
 - Pharmacists (2016): **4.71** (NC=**11.44**)
- Of particular concern is the age of the active practitioners: in Wilkes County, 21% of the physicians, and 21% of the dentists are over the age of 65.



Long-Term Care Facilities

Number of beds in NC-licensed long-term care facilities in Wilkes County (May, 2018):

- Adult Care Homes/Homes for the Aged (3): 261 beds
- Family Care Homes: None
- Nursing Homes/Homes for the Aged (3): 407 beds

Total: 668 beds, or 1 bed for every 20 persons age 65 and older (based on 2016 population estimate of 13,672).

With no new beds, the same ratio in 2030 could be as high as 1:29 (based on NC Office of State Budget and Management population estimate of 19,392).

Hospital Utilization:

WFBH Wilkes Medical Center Emergency Department Discharges by Gender and Age Group

- Females: Hospital – 55.7%; County – 50.8%
- Males: Hospital – 44.3%; County – 49.2%
- Under age 18: Hospital – 18.6%; County – 21.4%
- Age 18-64: Hospital – 65.9%; County – 58.8%
- Age 65 and older: Hospital 15.5%; County – 19.8%

No. ED Discharges by Gender and Age Group						
Year	No. by Gender		No. by Age Group			Total No. Annual Discharges
	Females	Males	< 18	18-64	≥ 65	
2015	14,963	12,060	5,054	17,861	4,110	27,025
2016	15,644	12,501	5,151	18,694	4,301	28,146
2017 (part)	11,949	9,318	4,021	13,821	3,426	21,268
Total	42,556	33,879	14,226	50,376	11,837	76,439

Hospital Utilization:

WFBH Wilkes Medical Center Emergency Department Discharges by Race

- Black/African American: Hospital – 8.3%; County – 4.3%
- Caucasian/White: Hospital – 86.5%; County – 91.2%
- Hispanic: Hospital – 4.8%; County – 5.9%

No. ED Discharges by Racial Group

Year	Am. Indian/ Alaskan	Asian	Black/ African American	Caucasian/ White	Hispanic	Other	Unknown	Total No. Discharges
2015	17	79	2,196	23,471	1,256	0	6	27,025
2016	22	94	2,321	24,325	1,368	1	15	28,146
2017 (part)	10	54	1,848	18,323	1,023	2	8	21,268
Total	49	227	6,365	66,119	3,647	3	29	76,439

Hospital Utilization:

WFBH Wilkes Medical Center Inpatient Hospitalization Discharges by Gender and Age Group

- Females: Hospital – 60.9%; County – 50.8%
- Males: Hospital – 39.1%; County – 49.2%
- Under age 18: Hospital – 10.9%; County – 21.4%
- Age 18-64: Hospital – 43.0%; County – 58.8%
- Age 65 and older: Hospital 46.1%; County – 19.8%

No. IP Discharges by Gender and Age Group						
Year	No. by Gender		No. by Age Group			Total No. Annual Discharges
	Females	Males	< 18	18-64	≥ 65	
2015	2,677	1,720	471	1,859	2,067	4,397
2016	2,701	1,689	516	1,951	1,924	4,391
2017 (part)	1,799	1,189	301	1,250	1,437	2,988
Total	7,177	4,598	1,288	5,060	5,428	11,776

Hospital Utilization:

WFBH Wilkes Medical Center Inpatient Hospitalization Discharges by Race

- Black/African American: Hospital – 5.3%; County – 4.3%
- Caucasian/White: Hospital – 89.8%; County – 91.2%
- Hispanic: Hospital – 4.3%; County – 5.9%

No. ED Discharges by Racial Group								
Year	Am. Indian/ Alaskan	Asian	Black/ African American	Caucasian/ White	Hispanic	Other	Unknown	Total No. Discharges
2015	1	18	214	3,979	185	0	0	4,397
2016	2	24	252	3,910	201	0	2	4,391
2017 (part)	1	10	157	2,691	126	1	2	2,988
Total	4	52	623	10,580	512	1	4	11,776



Health Statistics



Health Rankings

- According to *America's Health Rankings* (2017)
 - NC ranked 33rd overall out of 50 (where 1 is “best”)
- According to *County Health Rankings* (2018) for NC, Wilkes County was ranked:
 - 80th overall out of 100 (where 1 is best) for ***health outcomes***
 - 86th in length of life
 - 66th for quality of life
 - 61st overall out of 100 for ***health factors***
 - 52nd for health behaviors
 - 87th for clinical care
 - 45th for social and economic factors
 - 50th for physical environment

Maternal and Infant Health

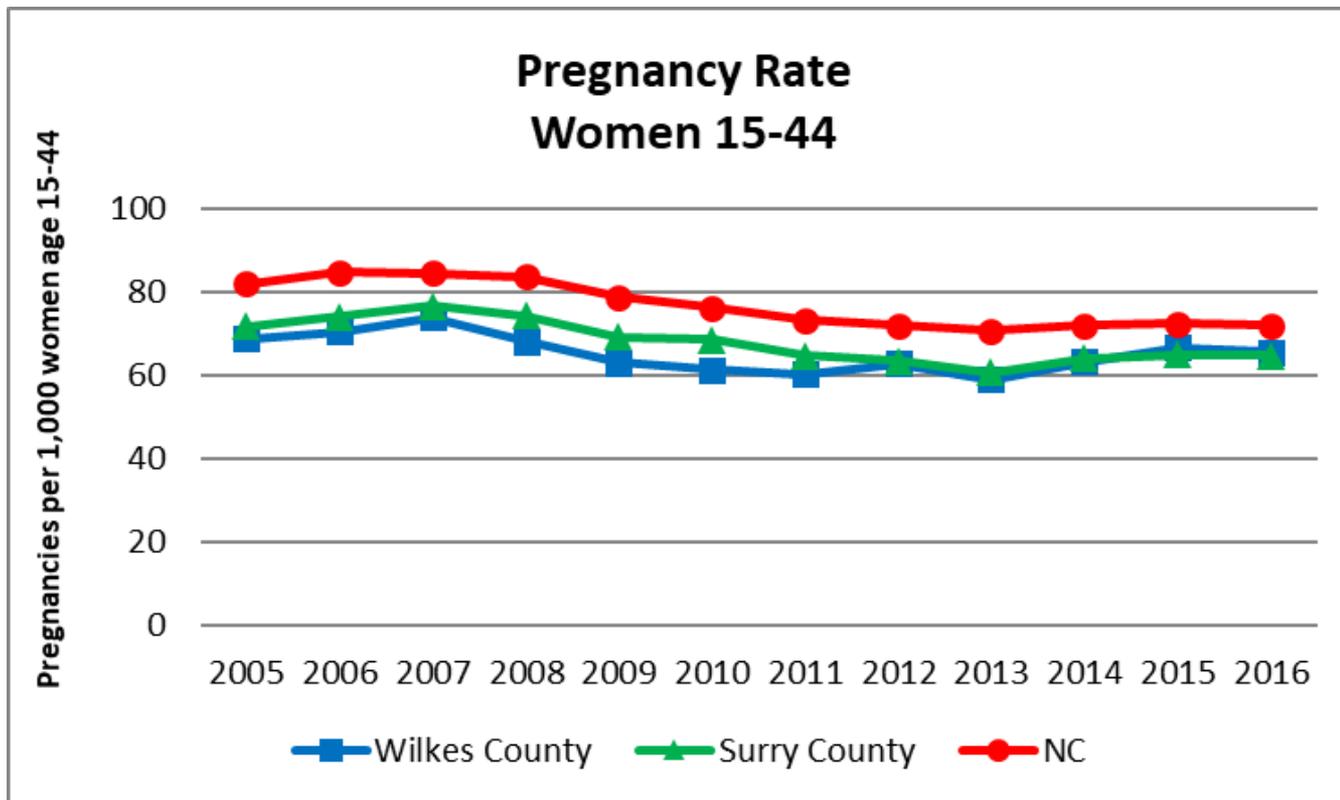
Pregnancy Rate

Wilkes County Women Age 15-44 Pregnancies per 1,000 women (2016)

- Total = 65.8 [▲ 11% since 2013] (NC = **72.2**)
- White non-Hispanic = **63.6** (NC = 63.0)
- African American non-Hispanic = 61.3 (NC = **76.4**)
- Hispanic = 89.9 (NC = **100.0**)

Pregnancy Rate

Wilkes County Women Age 15-44 Pregnancies per 1,000 women (2016)



Pregnancy Rate

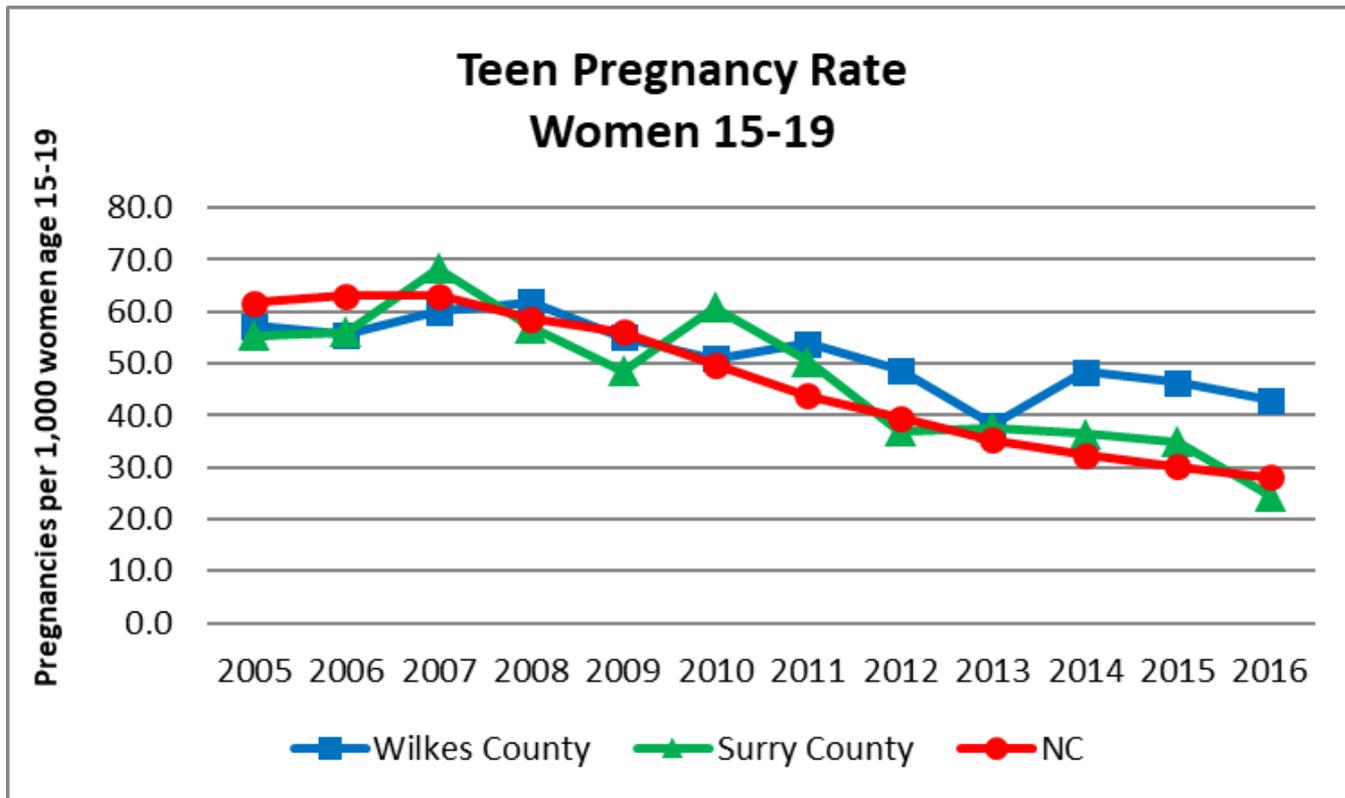
Wilkes County Women Age 15-19

Pregnancies per 1,000 women (2016)

- Total = **42.9** [▲ 13% since 2013] (NC = 28.1)
- White non-Hispanic = **44.6** (NC = 19.4)
- African American non-Hispanic = **n/a** (NC = 38.0)
- Hispanic = **n/a** (NC = **46.9**)

Pregnancy Rate

Wilkes County Women Age 15-19 Pregnancies per 1,000 women (2016)



Pregnancy Rate by Race/Ethnicity

Wilkes County Women Age 15-44 Pregnancies per 1,000 women (2016)

- Overall = 65.8
- White non-Hispanic = 63.6
- African American non-Hispanic = 61.3
- Hispanic = 89.9

Wilkes County Women Age 15-19 Pregnancies per 1,000 women (2016)

- Overall = 42.9
- White non-Hispanic = 44.6
- African American non-Hispanic = n/a
- Hispanic = n/a



Pregnancy Risk Factors

In Wilkes County:

- **High Parity Births (2012-2016) and change since 2009-2013**
 - Mothers age <30 = **15.6%** (NC = 14.2%) ▼7%
 - Mothers age ≥30 = **24.1%** (NC = 22.0%) ▲6%
- **Short Interval Births (2012-2016) and change since 2008-2012**
 - Overall = **14.7%** (NC = 12.9%) ▲2%
- **Percent of Births to Moms Who Received Prenatal Care in the First Trimester (2016) and change since 2013**
 - Overall = **73.5%** (NC = 69.0%) ▼5%
- **Percent of Births to Moms Who Smoked During Pregnancy (2016) and change since 2013**
 - Overall = **18.8%** (NC = 8.9%) ▼0.5%

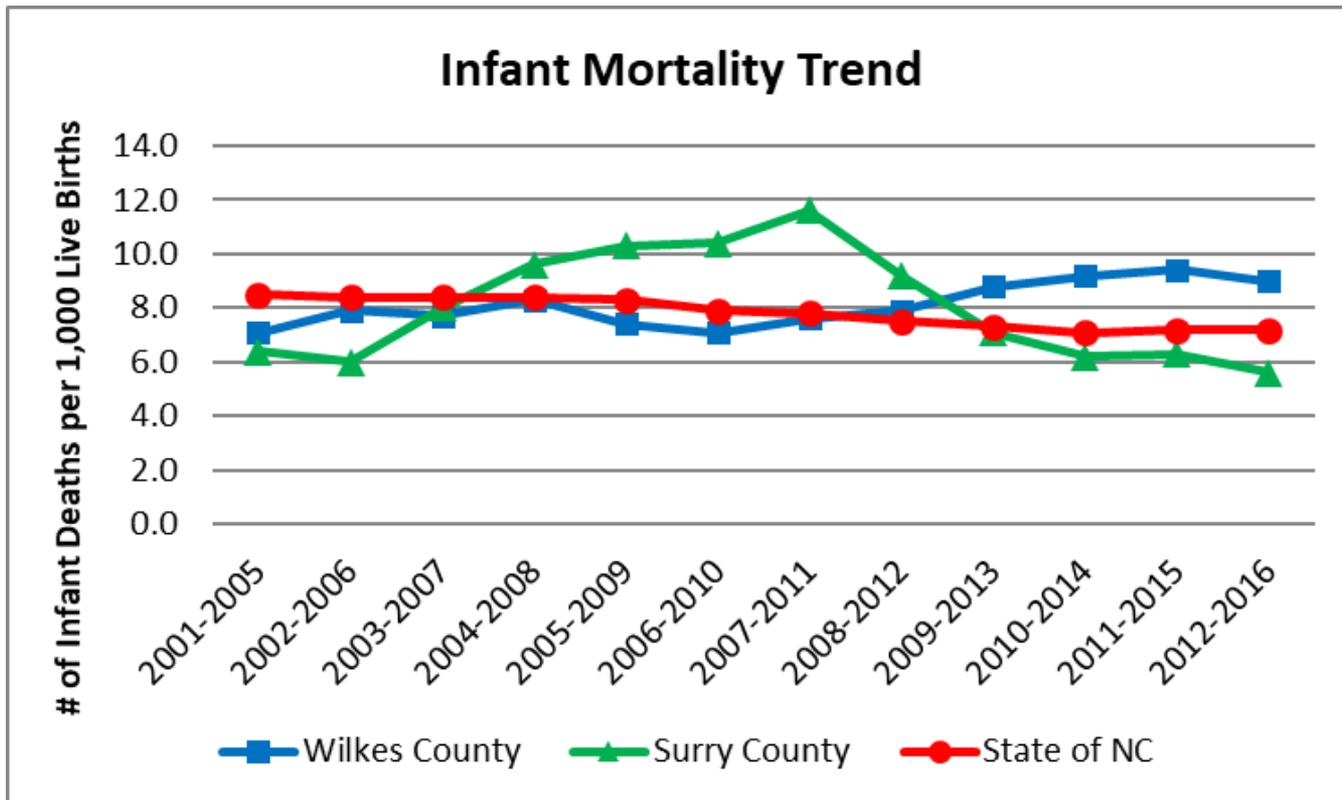
Pregnancy Outcomes

In Wilkes County for 2012-2016:

- **Low Birth Weight Births (<5.5 pounds)**
 - Overall = **9.4%** (NC = 9.0%) (▲12% since 2009-2013)
 - White non-Hispanic = **9.2%** (NC = 7.5%)
 - African American non-Hispanic = **15.6%** (NC = 13.9%)
 - Hispanic = **8.4%** (NC = 6.9%)
- **Very Low Birth Weight (<3.3 pounds)**
 - Overall = **1.7%** (NC = 1.7%) (no change since 2009-2013)
 - White non-Hispanic = **1.6%** (NC = 1.2%)
 - African American non-Hispanic = **4.8%** (NC = 3.2%)
 - Hispanic = **1.6%** (NC = 1.2%)

Pregnancy Outcomes

- **Cesarean Section Deliveries in Wilkes County (2012-2016)**
 - Overall = **36.2%** (NC = 29.8%)
- **Infant Mortality Rate Trend**



Pregnancy Outcomes

Hospital Discharges for Newborns and Neonates with Conditions Originating in the Perinatal Period

- According to data from WFBH Wilkes Medical Center, the total proportion of discharges associated with newborns or neonates in Wilkes County with some kind of problem originating in the perinatal period was 31% over the period cited. (The comparable proportion for 2012-2014 was 25%.)

Year	Number of Hospital Discharges by DRG (Diagnosis Related Group) Diagnosis						
	Total Newborns	Extreme Immaturity or Respiratory Distress	Prematurity with Major Problems	Prematurity without Major Problems	Full-Term Neonate with Major Problems	Neonate with Other Significant Problems	Normal Newborn
2017 (part)	252	0	2	18	12	57	155
2016	442	0	4	22	21	83	298
2015	403	0	2	28	8	79	273

Mortality



Life Expectancy

- **Life Expectancy for persons born in Wilkes County in 2014-2016:**
 - Overall: 76.1 years (NC=**77.4**)
 - Male: 73.7 years (NC=**74.8**)
 - Female: 78.6 years (NC=**79.9**)
 - White: 76.3 years (NC=**78.3**)
 - African American: 75.4 years (NC=**74.9**)
- **Life expectancies have *decreased* in all groups in the county and state since 2011-2013.**

Leading Causes of Death: Overall

Age-Adjusted Rates (2012-2016)	Wilkes Co. No. of Deaths	Wilkes Co. Mortality Rate	% Rate Difference from NC
1. Total Cancer	872	173.5	+4
2. Diseases of the Heart	826	166.8	+3
3. Chronic Lower Respiratory Disease	293	57.8	+27
4. All Other Unintentional Injury	191	50.7	+59
5. Cerebrovascular Disease	178	35.6	-17
6. Pneumonia and Influenza	158	33.1	+86
7. Alzheimer's Disease	158	31.9	0.0
8. Diabetes Mellitus	120	24.2	+5
9. Unintentional Motor Vehicle Injury	73	19.8	+40
10. Nephritis, Nephrotic Syndrome and Nephritis	81	16.1	-2
11. Septicemia	78	16.0	+22
11. Suicide	62	16.0	+24
13. Chronic Liver Disease and Cirrhosis	68	15.5	+51
14. Homicide	20	5.9	-5
15. AIDS	2	0.7	-68

Leading Causes of Death: Gender Comparison

Wilkes County Rank by Descending Overall Age-Adjusted Rate (2012-2016)	Rank Among Males	Rank Among Females	% Male Rate Difference from Females
1. Total Cancer	2	1	+55
2. Diseases of the Heart	1	2	+81
3. Chronic Lower Respiratory Disease	3	3	+31
4. All Other Unintentional Injury	4	4	+52
5. Cerebrovascular Disease	5	7	+29
6. Pneumonia and Influenza	6	6	+9
7. Alzheimer's Disease	11	5	-48
8. Diabetes Mellitus	7	8	+82
9. Unintentional Motor Vehicle Injury	8	13	n/a
10. Nephritis, Nephrotic Syndrome and Nephritis	10	10	+92
11. Septicemia	13	9	+16
11. Suicide	9	12	n/a
13. Chronic Liver Disease and Cirrhosis	12	11	+70
14. Homicide	14	14	n/a
15. AIDS	15	15	n/a

Leading Causes of Death: Race Comparison

Wilkes County Rank by Descending Overall Age-Adjusted Rate (2012-2016)	Rank Among White Non- Hispanic	Rank Among Black non- Hispanic	% Blacks Rate Difference from Whites
1. Total Cancer	1	2	-10
2. Diseases of the Heart	2	1	+51
3. Chronic Lower Respiratory Disease	3	n/a	n/a
4. All Other Unintentional Injury	4	n/a	n/a
5. Cerebrovascular Disease	5	n/a	n/a
6. Pneumonia and Influenza	7	n/a	n/a
7. Alzheimer's Disease	6	n/a	n/a
8. Diabetes Mellitus	8	n/a	n/a
9. Unintentional Motor Vehicle Injury	9	n/a	n/a
10. Nephritis, Nephrotic Syndrome and Nephritis	12	n/a	n/a
11. Septicemia	10	n/a	n/a
11. Suicide	11	n/a	n/a
13. Chronic Liver Disease and Cirrhosis	13	n/a	n/a
14. Homicide	14	n/a	n/a
15. AIDS	15	n/a	n/a

Leading Causes of Death: Hospital Utilization

Wilkes County Rank by Descending Overall Age-Adjusted Rate (2012-2016)	Wilkes Co. No. of Deaths 2012-2016	Hospital ED Discharges 2015-2017 (part) Total=76,469	Hospital IP Discharges 2015-2017 (part) Total=11,776
1. Total Cancer	872	36	104
2. Diseases of the Heart	826	860	710
3. Chronic Lower Respiratory Disease	293	1,552	492
4. All Other Unintentional Injury	191	n/a	n/a
5. Cerebrovascular Disease	178	141	207
6. Pneumonia and Influenza	158	1,280	501
7. Alzheimer's Disease	158	4	12
8. Diabetes Mellitus	120	445	221
9. Unintentional Motor Vehicle Injury	73	n/a	n/a
10. Nephritis, Nephrotic Syndrome and Nephritis	81	55	324
11. Septicemia	78	150	1,291
11. Suicide	62	n/a	n/a
13. Chronic Liver Disease and Cirrhosis	68	26	58
14. Homicide	20	n/a	n/a
15. AIDS	2	0	0

Leading Causes of Death – By Age

Age Group	Rank	Cause of Death in Wilkes County (2012-2016)
00-19	1	Conditions originating in the perinatal period
	2	Congenital anomalies (birth defects)
	3	Motor vehicle injuries
20-39	1	All other unintentional injuries
	2	Motor vehicle injuries
	3	Cancer; Diseases of the heart
40-64	1	Cancer (all sites)
	2	Diseases of the heart
	3	All other unintentional injuries
65-84	1	Cancer (all sites)
	2	Diseases of the heart
	3	Chronic lower respiratory disease
85+	1	Diseases of the heart
	2	Cancer (all sites)
	3	Alzheimer's disease

Short-Term LCD Mortality Rate Change

2009-2013 Compared to 2012-2016

Wilkes County Rank by Descending Overall Age-Adjusted Rate (2012-2016)	Rate in 2009-2013	Rate in 2012-2016	% Rate Change 2009-2013 to 2012-2016
1. Total Cancer	182.7	173.5	-5
2. Diseases of the Heart	166.4	166.8	+0.2
3. Chronic Lower Respiratory Disease	53.0	57.8	+9
4. All Other Unintentional Injury	47.0	50.7	+8
5. Cerebrovascular Disease	41.7	35.6	-15
6. Pneumonia and Influenza	29.4	33.1	+13
7. Alzheimer's Disease	22.7	31.9	+41
8. Diabetes Mellitus	24.8	24.2	-2
9. Unintentional Motor Vehicle Injury	17.7	19.8	+12
10. Nephritis, Nephrotic Syndrome and Nephritis	16.1	16.1	nc
11. Septicemia	17.1	16.0	-6
11. Suicide	13.6	16.0	+18
13. Chronic Liver Disease and Cirrhosis	11.5	15.5	+35
14. Homicide	5.4	5.9	+9
15. AIDS	1.4	0.7	-50

Long-Term LCD Mortality Rate Change 2001-2005 through 2012-2016

Leading Cause of Death in Wilkes County	Overall Trend Direction
1. Total Cancer	▼
2. Diseases of the Heart	▼
3. Chronic Lower Respiratory Disease	▲
4. All Other Unintentional Injury	▲
5. Cerebrovascular Disease	▼
6. Pneumonia and Influenza	▲
7. Alzheimer's Disease	▼
8. Diabetes Mellitus	▲
9. Unintentional Motor Vehicle Injury	▼
10. Nephritis, Nephrotic Syndrome and Nephritis	▲
11. Septicemia	▲
11. Suicide	▼
13. Chronic Liver Disease and Cirrhosis	▲▲
14. Homicide	▲
15. AIDS	▲

Site-Specific Cancer Trends

Wilkes County

Incidence: 1996-2000 to 2012-2016

Mortality: 2001-2005 to 2012-2016

Cancer Site	Parameter	Overall Trend Direction
Lung Cancer	Incidence Mortality	▲ ▼
Prostate Cancer	Incidence Mortality	▼ ▼▼
Breast Cancer	Incidence Mortality	▼ ▼
Colorectal Cancer	Incidence Mortality	▼ ▼
Pancreas Cancer	Incidence Mortality	n/a ▲



Morbidity



Sexually Transmitted Infections

- **Total Chlamydia Incidence Rates (2016)**
 - Wilkes County – 223/100,000 population
 - Overall Chlamydia trend 2009-2016 = ▲
 - Surry County – 256
 - State of NC – **572**

- **Total Gonorrhea Incidence Rates (2016)**
 - Wilkes County – 39/100,000 population
 - Overall Gonorrhea trend 2009-2016 = ▲
 - Surry County - 47
 - State of NC - **194**



Adult Diabetes

- Change in prevalence of diagnosed diabetes among adults (age 18 or older) between 2006 and 2013.
 - Wilkes County: ▼ 12%
 - Surry County: ▲ 26%
 - State of NC: ▲ 17%
- Average annual prevalence of diagnosed diabetes among adults (2006 through 2013) :
 - Wilkes County: 9.8%
 - Surry County: 10.5%
 - State of NC: 9.5%

Adult Obesity

- Change in prevalence of diagnosed obesity among adults (age 18 or older) between 2006 and 2013.
 - Wilkes County: ▼ 2%
 - Surry County: ▲ 21%
- Average annual prevalence of diagnosed obesity among adults (2006 through 2013) :
 - Wilkes County: 28.2%
 - Surry County: 29.5%

Childhood Obesity

NCPedNESS 2015

2-4 Year-Olds

Overweight

- Wilkes – 18%
- Surry – 17%
- State of NC – 15%

Obese

- Wilkes – 15%
- Surry – 14%
- State of NC – 14%

5-11 Year-Olds

Overweight

- Wilkes – 15%
- Surry – 13%
- State of NC – 13%

Obese

- Wilkes – 19%
- Surry – 9%
- State of NC – 15%

Mental Health

- In 2017, **2,811** persons from Wilkes County were served by the local **Area Mental Health Program (LME/MCO)**, *Vaya Health*.
- In 2017, **9** persons from Wilkes County were served by **State Psychiatric Hospitals**.
- In 2016, **13** Wilkes County residents were served by **NC State Alcohol and Drug Abuse Treatment Centers (ADATCs)**.

Mental Health

According to data from WFBH Wilkes Medical Center, Emergency Department admissions for all Mental, Behavioral and Neurodevelopmental Disorders among Wilkes County residents in recent years were:

- 2015: 836 patients (3.1% of all ED admissions)
 - 2016: 809 patients (2.9%)
 - 2017 (part): 618 patients (2.9%) (Annualizes to 824)
- The average annual number of hospital ED visits for mental health conditions in the period 2015 through 2017 (823) equaled approximately **29%** of the number of patients served by Vaya Health in 2017 (2,811).

Opioid Prescribers

- Between 2013 and 2016, an average of 68% of Medicare Part D prescribers in Wilkes County were prescribing opioids
 - 63% in Surry County
 - 54% in NC
 - 46% nationwide
- 100% of Medicare Part D prescribers in Hays and Ronda were prescribing opioids over that same period.
- A lower proportion of providers in Wilkesboro (58%) and North Wilkesboro (68%) were prescribing opioids.
- Over the four year period, percentages have not changed dramatically in any location.

Opioid Prescribing Rate

- The opioid prescribing rate is the percent of all Medicare Part D claims which are opioid claims.
- Among Medicare Part D prescribers:
 - the 2016 prescribing rate in Wilkes County was lower compared to Surry, NC and the nation.
 - the location with the highest opioid prescribing rate in 2016 was Hays, though the rate there has decreased over time.
 - the opioid prescribing rate has decreased between 2013 and 2016 in all locations available for analysis (nation, state, Wilkes, Surry and certain zip codes) except Ferguson.



Opioid Action Plan: Deaths and Oversupply

	2016	2017	2018 YTD
Unintentional Opioid Related Deaths	26	13	n/a
EMS Visits receiving an opioid overdose diagnosis	34	49	25
Multiple Provider Episode Rate (per 100,000 pop.)	24.8	11.7	n/a
Opioid Pills Dispensed	6,322,000	3,843,000	1,096,000
% of patients with an opioid Rx receiving more than the recommended average daily dose	16.3	11.9	13.0
% of Rx days a patient had an opioid Rx and at least one benzodiazepine Rx on the same day	34.5	28.8	25.8



Opioid Action Plan: Diversion, Naloxone, and Treatment

	2016	2017	2018 YTD
% of opioid deaths involving fentanyl/fentanyl analogues	n/a	21.4	100.0
EMS Naloxone Administrations	121	129	40
Community Naloxone Administrations	10	1	4
Buprenorphine prescriptions dispensed	6,037	4,841	2,167
Uninsured or Medicaid beneficiaries with an opioid use disorder served by treatment programs	972	1,388	442



Community Health Survey

548 surveys collected

2014 figures are provided in parentheses for comparison



Survey / Population Comparison

Demographic Parameter	%, 2018 Survey (n=548)	%, Wilkes County 2016 US Census, etc.
GENDER		
Male	19.3	49.4
Female	80.3	50.6
RACE		
White/Caucasian	85.4	91.2
Black/African American	9.7	4.3
Native American	1.2	0.2
Hispanic	5.2	5.9
AGE		
18-34	22.5	39.0
35-64	58.2	41.2
65 and Older	19.2	19.8
EDUCATION		
Less than HS Diploma or GED	8.5	23.2
Bachelor's Degree or Higher	31.8	13.8
HOUSEHOLD INCOME < \$25,000	30.6	27.4

Survey Demographics Summary

- Compared to Census and other authoritative statistics for the overall Wilkes County population, the 2018 survey sample:
 - Was predominately female
 - Over-represented blacks
 - Adequately represented Hispanics
 - Over-represented 20-64 year olds
 - Under-represented less well educated and over-represented college (or higher) educated persons
 - Over-represented higher income persons

Access to Health Care and Social Services

- **Health Care Coverage**
 - 11% did not have health insurance (8%)
- **Most common place to go when sick:**
 - Doctors office: 73% (82%)
 - Health department: 9% (3%)
 - Urgent care center: 7% (6%)
 - Emergency department: 3% (3%)
 - I do not receive care: 4% (4%)
- **Problem accessing medical care or social services:**
 - 50% had *not* had a problem recently (58%)
 - **Most common problems reported**
 - Cost/deductible/co-pay was too high: 25% (20%)
 - No insurance (health or dental): 18% (17%)
 - Insurance didn't cover what was needed: 14% (12%)
 - Couldn't get an appointment: 10% (7%)



Health Information Access

- **Most common sources of GENERAL health-related information**
 - Doctor or nurse: 37% (46%)
 - Internet: 29% (29%)
 - Health department: 7% (2%)
 - Friends or family: 6% (4%)
 - Television: 5% (4%)

- **Most common sources of LOCAL health-related information**
 - Internet (social media, blogs, Facebook): 53% (50%)
 - Friends or family: 45% (35%)
 - Newspapers: 34% (48%)
 - Television: 30% (21%)
 - Workplace: 27% (26%)

Mental Health

- **Most common places to refer someone thinking about suicide**
 - Crisis hotlines: 26% (16%)
 - Minister/religious official: 14% (21%)
 - Call 911: 12% (9%)
 - Friends and/or family: 11% (14%)
- **Most common places to refer someone with a mental health concern**
 - Private counselor or therapist: 25% (20%)
 - Daymark: 17% (9%)
 - Doctor: 17% (25%)
 - Minister/religious official: 11% (10%)
- **Most common places to refer someone with a substance abuse problem**
 - Daymark: 19% (10%)
 - Doctor: 19% (29%)
 - Support group: 12% (15%)
 - Private counselor or therapist: 11% (10%)

Tobacco Use

- **Tobacco use**

- Yes: 13% (8%)
- Yes, but trying to quit: 5% (4%)
- Used to smoke but have quit: 20% (21%)
- Never smoked: 63% (67%)

- **Tobacco Quitting Preferences**

- Doctor: 33% (31%)
- I don't know: 21% (31%)
- Free Quit Line NC: 12% (13%)
- 23% of respondents who self-identify as “smokers” don't want to quit (20%)

Physical Activity

- **Physical Activity or Exercise (such as running, calisthenics, golf, gardening, or walking)**
 - Yes: 72%
- **Most common places to exercise:**
 - Home: 50%
 - Outdoor recreation or play: 43%
 - Community walking trails or groups: 32%
 - Streets, sidewalks, neighborhood roads: 28%
 - Indoor recreation centers or facilities: 24%
 - Bike trails: 13%

Fruits and Vegetables

- **Eats at least 5 servings of fruits and vegetables a day**
 - No: 70%
- **Most common sources of fruits and vegetables:**
 - Grocery store: 89% (85%)
 - Farmers market/produce stands: 37% (66%)
 - Grown in own/family garden: 30% (34%)
 - Restaurant or cafeteria: 19% (8%)

Personal Health Diagnoses

- **Personal Health Diagnoses**

Angina/heart disease: 5% (4%)

Asthma: 15% (18%)

Cancer: 5% (5%)

Depression: 24% (25%)

Diabetes: 19% (11%)

High blood pressure: 35% (31%)

High cholesterol: 30% (29%)

Obesity/overweight: 36% (45%)

Personal Health Diagnoses

– Most common diagnoses among males

- High blood pressure: 38% (41%)
- High cholesterol: 26% (39%)
- Overweight/obesity: 30% (33%)

– Most common diagnoses among females

- Overweight/obesity: 38% (46%)
- High blood pressure: 34% (28%)
- High cholesterol: 31% (26%)

Health Behaviors

- **In the past year reported having had:**
 - A routine physical or check-up: 84%
 - Been to the dentist/dental hygienist: 65%
 - Had a cancer screening as recommended by a provider: 57%
 - Had blood pressure checked: 91%
 - Had cholesterol checked: 69%
 - Had blood sugar levels checked: 73%

Calculated BMI

- The average BMI among respondents was 30.1
- The lowest BMI calculated was 16.8
- The highest BMI calculated was 58.5

	2018	
	#	%
Underweight (below 18.5)	4	0.9%
Normal or healthy weight (18.5 – 24.9)	113	24.5%
Overweight (25.0 – 29.9)	146	31.7%
Obese (30.0 and above)	198	43.0%
Total	461	

Community Issues

Community Issues Affecting Quality of Life	2018	
	#	%
Substance Abuse (drugs and alcohol)	330	64.5%
Economic issues (unemployment, poverty, lack of higher paying jobs)	270	52.7%
Mental Health Concerns (depression, suicide, stress, hopelessness)	158	30.9%
Affordability of health services	149	29.1%
Abuse and neglect	109	21.3%
Lack of/inadequate health insurance	83	16.2%
Transportation options	55	10.7%
Lack of social support (support groups, social activities, loneliness, friendships)	54	10.6%
Educational issues (access to higher education, quality, dropping out of school)	51	10.0%
Hunger	46	9.0%
Homelessness	45	8.8%
Crime (violence, theft, sexual assault)	40	7.8%
Domestic Violence	32	6.3%
Discrimination/Racism	29	5.7%

Environmental Health Concerns

Environmental Concerns Impacting Health	2018		2015	
	#	%	#	%
Meth labs	324	63.3%	254	27.1%
Secondhand smoke	282	55.1%	374	40.0%
Household hygiene	232	45.3%	124	13.2%
Mold	144	28.1%	226	24.1%
Food safety	86	16.8%	233	24.9%
Air pollution	83	16.2%	n/a	n/a
Drinking water	72	14.1%	259	27.7%
Septic system failure	35	6.8%	35	3.7%
Fluoride-enriched water	32	6.3%	63	6.7%
Lead exposure	18	3.5%	16	1.7%
Radon	10	2.0%	31	3.3%



Services Needing Improvement

Services Needing Improvement	2018		2015	
	#	%	#	%
Substance abuse services	207	40.4%	235	25.1%
Mental Health and Counseling services	170	33.2%	160	24.4%
Services for the elderly	163	31.8%	n/a	n/a
Better/more recreational facilities	151	29.5%	155	16.6%
Services for children (fostering programs, CDSA, child care centers)	133	26.0%	n/a	n/a
Career/job centers	130	25.4%	n/a	n/a
Transportation options	104	20.3%	91	9.7%
Better/healthier food choices	98	19.1%	174	18.6%
Road maintenance and safety	95	18.6%	114	12.2%
Food Banks/Pantries	67	13.1%	109	11.6%
Transitional/halfway housing	51	10.0%	40	4.3%
Animal Control	50	9.8%	47	5.0%



Health Behaviors

Most impact on quality of life in Wilkes County	2018	
	#	%
Substance Abuse	372	72.7%
Unhealthy lifestyle (poor eating habits, lack of exercise)	230	44.9%
Anxiety/depression/stress	217	42.4%
Lack of good parenting	196	38.3%
Smoking/tobacco use	116	22.7%
Not getting preventive medical care (vaccines, checkups, screenings)	83	16.2%
Angry, violent behavior	69	13.5%
Unsafe driving (texting while driving, not using child safety seats, not wearing seatbelts)	61	11.9%
Unsafe sexual practices (no pregnancy/STD prevention)	61	11.9%
Suicide	29	5.7%
Poor preparation for an emergency or disaster	17	3.3%
Not getting pre-natal (pregnancy) care	9	1.8%

Stakeholder Survey Results

34 participants



Participants

- **Position in agency**

- 41% were directors/executives
- 27% were management
- 9% were registered nurses
- 24% were support staff

- **Types of Services**

- 35% substance abuse-, addiction- or mental health-related (largest segment)
- Healthcare, dental, safety, prevention, public services and education



Population Utilizing Services

- Many offer services to all residents
- 23% serve children/youth
- 32% serve those with mental health or substance abuse issues
- 24% serve low income, Medicaid recipients, the uninsured
- 8% serve businesses or business owners
- 62% said there have been no changes to the composition of people using their services in the last 5 years.
- 38% have seen changes in their client base



Changes in the Needs of their Clients

- **65% stated their client needs have changed in the last 5 years**
 - Need for jobs, transportation, housing
 - Healthcare needs
 - Food resources
- **Barriers faced:**
 - Transportation (identified by 44% of participants)
 - Stigma
 - Monetary
 - Language



Overcoming Barriers

- To address **transportation**:
 - provided financial assistance
 - reduced transportation required
 - offered services by phone
 - went out into the community
- Interpreters
- Education
- Better advertising



Needed Services

- **Transportation**
 - county-wide bus route
 - expand current route to a regular, more frequent schedule
 - low cost public transportation would increase services utilization
 - Sidewalks
 - Bike shares
 - Taking services out into the community
- **Increase the variety of community programs**



2018 Community Health Opinion Survey

WILKES COUNTY

Thank you for taking this short survey. The Wilkes County Health Department, Wake Forest Baptist Health-Wilkes Regional Medical Center, the Health Foundation, and other community agencies use this information to understand community health needs. No answer you provide will be linked back to you in any way. You must be at least age 18 or older to take this survey and live in Wilkes County. If you have already taken the survey on paper or online, please do not take it again.

If you would like to know more about the chance to win a gift card, please continue to the end of the survey where you can find out how to enter the drawing.

Please note, we are asking only Wilkes County residents 18 years or older to complete the survey.

1. Are you a resident of Wilkes County age 18 or over?

- Yes No

If no, thank you for your time and interest in our survey.

2. In general, would you say that your overall health is....

- Excellent Very Good Good Fair Poor

3. Please choose up to three issues that, in your opinion, most affect the quality of life in Wilkes County.

- | | | |
|---|---|--|
| <input type="checkbox"/> Abuse and Neglect | <input type="checkbox"/> Economic Issues (unemployment, poverty, lack of higher paying jobs) | <input type="checkbox"/> Lack of social support (support groups, social activities, loneliness, friendships) |
| <input type="checkbox"/> Affordability of health services | <input type="checkbox"/> Educational Issues (access to higher education, quality, dropping out of school) | <input type="checkbox"/> Mental Health Concerns (depression, suicide, stress, hopelessness) |
| <input type="checkbox"/> Crime (violent, theft, sexual assault) | <input type="checkbox"/> Homelessness | <input type="checkbox"/> Substance Abuse (drugs and alcohol) |
| <input type="checkbox"/> Discrimination/racism | <input type="checkbox"/> Hunger | <input type="checkbox"/> Transportation options |
| <input type="checkbox"/> Domestic Violence | <input type="checkbox"/> Lack of/inadequate health insurance | |
| <input type="checkbox"/> Other: _____ | | |

4. Please choose up to three unhealthy behaviors that, in your opinion, have the biggest impact on the health of Wilkes County.

- | | | | |
|--|---|--|--|
| <input type="checkbox"/> Angry, violent behavior | <input type="checkbox"/> Not getting preventive medical care (vaccines, checkups, screenings) | <input type="checkbox"/> Smoking/tobacco use | <input type="checkbox"/> Unhealthy lifestyle (poor eating habits, lack of exercise) |
| <input type="checkbox"/> Anxiety/Depression/Stress | <input type="checkbox"/> Not getting pre-natal (pregnancy) care | <input type="checkbox"/> Substance abuse | <input type="checkbox"/> Unsafe driving (texting while driving, not using child safety seats, not wearing seatbelts) |
| <input type="checkbox"/> Lack of good parenting | <input type="checkbox"/> Poor preparation for an emergency or disaster | <input type="checkbox"/> Suicide | <input type="checkbox"/> Unsafe sexual practices (no pregnancy/STD prevention) |
| <input type="checkbox"/> Other: _____ | | | |

5. Please choose up to three environmental health concerns that you believe most affect Wilkes County.

- | | | | |
|--|--|------------------------------------|--|
| <input type="checkbox"/> Air pollution | <input type="checkbox"/> Food safety | <input type="checkbox"/> Meth labs | <input type="checkbox"/> Secondhand Smoke |
| <input type="checkbox"/> Drinking water | <input type="checkbox"/> Household Hygiene | <input type="checkbox"/> Mold | <input type="checkbox"/> Septic system failure |
| <input type="checkbox"/> Fluoride-enriched water | <input type="checkbox"/> Lead exposure | <input type="checkbox"/> Radon | |
| <input type="checkbox"/> Other: _____ | | | |

6. Please choose up to three services that, in your opinion, need the most improvement in your neighborhood or community.

- | | | | |
|--|--|---|---|
| <input type="checkbox"/> Animal Control | <input type="checkbox"/> Career/job centers | <input type="checkbox"/> Road maintenance and safety | <input type="checkbox"/> Substance abuse services |
| <input type="checkbox"/> Better/healthier food choices | <input type="checkbox"/> Food Banks/Pantries | <input type="checkbox"/> Services for children (fostering programs, CDSA, child care centers) | <input type="checkbox"/> Transitional/halfway housing centers |
| <input type="checkbox"/> Better/more recreational facilities | <input type="checkbox"/> Mental Health and Counseling Services | <input type="checkbox"/> Services for the elderly | <input type="checkbox"/> Transportation options |
| <input type="checkbox"/> Other: _____ | | | |

7. Please select the one source that you get most of your general health-related information from.

- | | | |
|--|--|---|
| <input type="checkbox"/> Books/magazines | <input type="checkbox"/> Health department | <input type="checkbox"/> Local media websites |
| <input type="checkbox"/> Church | <input type="checkbox"/> Help lines | <input type="checkbox"/> Newspaper |
| <input type="checkbox"/> Doctor/nurse | <input type="checkbox"/> Hospital | <input type="checkbox"/> Pharmacist |
| <input type="checkbox"/> Friends and/or family | <input type="checkbox"/> Internet | <input type="checkbox"/> Television |
| <input type="checkbox"/> Other: _____ | | |

8. Where do you find out about local health news or events? Check all that apply.

- | | | |
|--|---|---------------------------------------|
| <input type="checkbox"/> Billboards | <input type="checkbox"/> Friends and/or family | <input type="checkbox"/> Television |
| <input type="checkbox"/> Church | <input type="checkbox"/> Internet (social media, Facebook, blogs) | <input type="checkbox"/> Workplace |
| <input type="checkbox"/> Direct mail | <input type="checkbox"/> Magazines | <input type="checkbox"/> Radio |
| <input type="checkbox"/> Email updates | <input type="checkbox"/> Newspapers | <input type="checkbox"/> Other: _____ |

9. Do you currently use any tobacco products (cigarettes, cigars, cigarillos, dip, chewing tobacco, snuff, e-cigarettes, vaping, bidis, hookah, shisha, or other)?

- | | |
|---|--|
| <input type="checkbox"/> Yes, I use tobacco now | <input type="checkbox"/> No, I quit using tobacco |
| <input type="checkbox"/> Yes, I am trying to quit | <input type="checkbox"/> No, I've never used tobacco |

10. If yes, where would you go for help if you wanted to quit?

- | | | | |
|--|--|--|---|
| <input type="checkbox"/> N/A: I don't want to quit | <input type="checkbox"/> Doctor | <input type="checkbox"/> Health Department | <input type="checkbox"/> Private counselor/ therapist |
| <input type="checkbox"/> Church | <input type="checkbox"/> Free Quit Line NC | <input type="checkbox"/> Pharmacy | <input type="checkbox"/> I don't know |
| <input type="checkbox"/> Other: _____ | | | |

11. In your opinion, what are the top three biggest substance abuse problems among ADULTS in this county?

- | | | |
|---|--|--|
| <input type="checkbox"/> Abusing prescription drugs | <input type="checkbox"/> Drinking & driving | <input type="checkbox"/> Marijuana |
| <input type="checkbox"/> Alcohol abuse | <input type="checkbox"/> Heroin | <input type="checkbox"/> Methamphetamine (Meth) |
| <input type="checkbox"/> Cocaine/crack | <input type="checkbox"/> Huffing (inhaling glue, dust-off, etc.) | <input type="checkbox"/> Using someone else's prescription drugs |
| <input type="checkbox"/> I don't know | <input type="checkbox"/> Other: _____ | |

12. In your opinion, what are the top three biggest substance abuse problems among YOUTH in this county?

- | | | |
|---|--|--|
| <input type="checkbox"/> Abusing prescription drugs | <input type="checkbox"/> Drinking & driving | <input type="checkbox"/> Marijuana |
| <input type="checkbox"/> Alcohol abuse | <input type="checkbox"/> Heroin | <input type="checkbox"/> Methamphetamine (Meth) |
| <input type="checkbox"/> Cocaine/crack | <input type="checkbox"/> Huffing (inhaling glue, dust-off, etc.) | <input type="checkbox"/> Using someone else's prescription drugs |
| <input type="checkbox"/> I don't know | <input type="checkbox"/> Other: _____ | |

13. If a friend or family member were thinking about suicide, who is the first person you would tell them to talk to?

- | | | | |
|--|---|---|---|
| <input type="checkbox"/> Call 9-1-1 | <input type="checkbox"/> Daymark | <input type="checkbox"/> Friends and/or family | <input type="checkbox"/> Private counselor/ therapist |
| <input type="checkbox"/> Care Connection | <input type="checkbox"/> Doctor | <input type="checkbox"/> Health Department | <input type="checkbox"/> School counselor |
| <input type="checkbox"/> Crisis hotlines | <input type="checkbox"/> Emergency Department | <input type="checkbox"/> Minister/ religious official | <input type="checkbox"/> Support group (AA, NA, etc.) |
| <input type="checkbox"/> I don't know | <input type="checkbox"/> Other: _____ | | |

14. If a friend or family member needed counseling for a mental health concern or issue, who is the first person you would tell them to talk to?

- | | | | |
|--|---|---|---|
| <input type="checkbox"/> Call 9-1-1 | <input type="checkbox"/> Daymark | <input type="checkbox"/> Friends and/or family | <input type="checkbox"/> Private counselor/ therapist |
| <input type="checkbox"/> Care Connection | <input type="checkbox"/> Doctor | <input type="checkbox"/> Health Department | <input type="checkbox"/> School counselor |
| <input type="checkbox"/> Crisis hotlines | <input type="checkbox"/> Emergency Department | <input type="checkbox"/> Minister/ religious official | <input type="checkbox"/> Support group (AA, NA, etc.) |
| <input type="checkbox"/> I don't know | <input type="checkbox"/> Other: _____ | | |

15. If a friend or family member wanted help for a substance abuse problem, who is the first person you would tell them to talk to?

- | | | | |
|--|---|---|---|
| <input type="checkbox"/> Call 9-1-1 | <input type="checkbox"/> Daymark | <input type="checkbox"/> Friends and/or family | <input type="checkbox"/> Private counselor/ therapist |
| <input type="checkbox"/> Care Connection | <input type="checkbox"/> Doctor | <input type="checkbox"/> Health Department | <input type="checkbox"/> School counselor |
| <input type="checkbox"/> Crisis hotlines | <input type="checkbox"/> Emergency Department | <input type="checkbox"/> Minister/ religious official | <input type="checkbox"/> Support group (AA, NA, etc.) |
| <input type="checkbox"/> I don't know | <input type="checkbox"/> Other: _____ | | |

16. During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?

- Yes No

17. Where do you go for physical activity or exercise? Check all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Bike trails | <input type="checkbox"/> Outdoor recreation & play – parks, public/church/school playgrounds, greenways, etc. |
| <input type="checkbox"/> Community walking trails or groups | <input type="checkbox"/> Streets, sidewalks, neighborhood roads |
| <input type="checkbox"/> Home | <input type="checkbox"/> Workplace |
| <input type="checkbox"/> Indoor recreation centers or facilities | <input type="checkbox"/> I don't exercise or participate in physical activity |
| <input type="checkbox"/> Other: _____ | |

18. One of the recommendations for healthy eating is to eat at least 5 servings of fruits & vegetables a day. Do you eat this many servings of fruits and vegetables in an average day?

- Yes No

19. Where do you get your fruits and vegetables most often? (Choose up to three.)

- | | |
|---|--|
| <input type="checkbox"/> Community or convenience store | <input type="checkbox"/> Grocery store |
| <input type="checkbox"/> Farmer's market/produce stands | <input type="checkbox"/> Grow in my own garden/friend or family members garden |
| <input type="checkbox"/> Food Bank/ Pantry | <input type="checkbox"/> Restaurant or cafeteria |
| <input type="checkbox"/> Flea Market/Cattle Sale | <input type="checkbox"/> I do not buy them. |
| <input type="checkbox"/> Other: _____ | |

20. Have you been told IN THE PAST THREE YEARS by a doctor, nurse, or other health professional that you have any of the following health conditions?

- | | | | |
|--|------------------------------|-----------------------------|-------------------------------------|
| a. Asthma | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| b. Depression | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| c. Hypertension/ high blood pressure | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| d. High cholesterol | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| e. Diabetes/ Sugar (not during pregnancy) | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| f. Osteoporosis | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| g. Overweight/ Obesity | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| h. Angina/ Heart disease | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| i. Cancer | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |

21. In the past year, have you:

- a. Had a routine/annual physical or check-up Yes No Don't know
- b. Been to the dentist/dental hygienist Yes No Don't know
- c. Had a recommended screening (mammogram, colonoscopy, prostate, etc.) Yes No Don't know
- d. Had your blood pressure checked Yes No Don't know
- e. Had your cholesterol checked Yes No Don't know
- f. Had your blood sugar levels checked Yes No Don't know

22. Choose the one place you go most often when you are sick.

- I do not receive care.
- Doctor's office
- Emergency department
- Free clinic
- Health Department
- Holistic health clinic (chiropractor, acupuncturist, etc)
- Hospital
- MESH Unit
- Pharmacy
- Sobador/ Curandero
- Urgent care center
- Other: _____

23. Have any of the following problems prevented you or your family member from getting necessary health or social services? Check all that apply.

- I have not had any issues accessing care or services.
- Communication issues
- Cost/deductible/co-pay was too high
- Couldn't get an appointment
- Didn't know where to go
- Other: _____
- Insurance didn't cover what was needed
- Language Barrier
- No insurance (health or dental)
- No way to get there
- Provider/facility wouldn't take my insurance/Medicaid
- Treated poorly/disrespectfully
- Wait was too long

24. Do you feel that there is a need for additional providers or medical services in Wilkes County?

- Yes
- No
- I do not know

If yes, what providers or services? _____

**** Please complete the questions below for STATISTICAL PURPOSES ONLY. ****

25. How old are you?

- 19 or less
- 20 – 34
- 35 – 54
- 55 – 64
- 65 – 74
- 75 or older

26. How do you describe yourself?

- Female
- Male
- Other

27. Are you of Hispanic, Latino, or Spanish origin?

- Yes
- No

28. What is your race? Please check all that apply.

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic or Latino
- Native Hawaiian or other Pacific Islander
- White or Caucasian
- Other: _____

29. What is the highest level of school, college, or vocational training that you have finished?

- Less than 9th grade
- 9th to 12th grade, no diploma
- High school graduate (or GED/ equivalent)
- Some college (no degree)
- Associate's degree or Vocational training
- Bachelor's degree
- Graduate or professional degree

30. What type of health insurance do you have? (Choose all that apply)

- I do not have health insurance.
- Blue Cross/ Blue Shield
- United Health Care
- Other private insurance company
- Medicaid
- Medicare
- Military related coverage such as CHAMPUS or Tricare
- Other: _____

31. What was your total household income last year, before taxes?

- Less than \$10,000
- \$10,000 to \$14,999
- \$15,000 to \$24,999
- \$25,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 or more

32. What is your zip code? Write only the first 5 digits.

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33. About how tall are you without shoes? _____ feet _____ inches

34. About much do you weigh without shoes? _____ pounds

THANK YOU FOR YOUR TIME.

IF YOU WOULD LIKE TO BE ENTERED INTO A DRAWING TO WIN A \$100 GIFT CARD OR RECIEVE RESULTS, PLEASE COMPLETE THE NEXT PAGE. THE NEXT PAGE IS NOT REQUIRED.

The results of this survey will be posted online or available electronically on request at www.healthywilkes.org, www.wilkesregional.com, and www.healthfoundationinc.org.

If you are interested in being entered into the drawing for a gift card or receiving the Community Health Needs Assessment results, please provide:

Name: _____

Email or mailing address: _____

Phone number: _____

Check here if you would like information about the results of the Community Health Needs Assessment.

THANK YOU FOR YOUR TIME.

Wilkes County Health Summit October 20, 2018

Attendees (as they signed in)

- | | |
|-----------------------|--|
| 1. Bernetta Thigpen | NC Council for Women and Youth Involvement |
| 2. Sarah Stevens | NC House |
| 3. Emily Alford | App Health Care |
| 4. Susan Ledbetter | DSS |
| 5. Amanda Shumate | Services for the Blind |
| 6. Leah Kilby | General public |
| 7. Angie Presley | General public |
| 8. Stewart Presley | General public |
| 9. Gene Faile | WFBH Wilkes Medical Center |
| 10. Barry Wald | WFBH Wilkes Medical Center |
| 11. Graylin Carlton | WFBH Wilkes Medical Center |
| 12. Gerianne Hannibal | Mediation and Restorative Justice Center |
| 13. Laura Welborn | Donlin Counseling Services |
| 14. Barbara McKenzie | Health Foundation |
| 15. Annette Battle | Health Foundation |
| 16. Crystal Keener | Town of North Wilkesboro |
| 17. Holly Norman | Health Foundation |
| 18. Kelsey Harris | Health Foundation |
| 19. Ann Absher | Wilkes County Health Department |
| 20. Heather Murphy | Health Foundation |
| 21. Jenn Wages | Health Foundation |
| 22. Debbie Nicholson | Wilkes County Health Department |
| 23. Barb Help | Hunger Coalition |
| 24. Tina Nuger | Home Instead Senior Care |
| 25. Teresa Absher | Wilkes County Health Center |
| 26. Denise Monahan | Wilkes County Health Center |
| 27. Dawn Jolly | Wilkes Dental |
| 28. Armand Liman | Wilkes County Health Department |
| 29. Melissa Higgins | Communities in Schools |
| 30. Tina Krause | Hospitality House |
| 31. Shane Johnson | Hospitality House |
| 32. Lorie Edmiston | WFBH Wilkes Medical Center |
| 33. Leigh Combs | WFBH Wilkes Medical Center |
| 34. Debra Mancusi | WFBH Wilkes Medical Center |
| 35. LaVerne Johnson | WFBH Wilkes Medical Center |
| 36. Sherry Parsons | WFBH Wilkes Medical Center |

37. Heather Gibb	WFBH Wilkes Medical Center
38. Tammy Trivet	WFBH Wilkes Medical Center
39. Susan Bachmeier	Wilkes Medical Center
40. Kirsten Devlin	Wilkes Community Partnership for Children
41. Erin Kirby	Wilkes Community Partnership for Children
42. Stacy Daniels	Wilkes Community Partnership for Children
43. Terri Glenn	Second Harvest Food Bank of NWNC
44. Kana Miller	Second Harvest Food Bank of NWNC
45. Rachel Willard	Wilkes County Health Department
46. Jasmin Kivett	CDSA
47. Denise Klark	CDSA
48. Beverly Hersey	CSA
49. Jared Belk	Wilkes County Health Department
50. Jule Hubbard	Wilkes Journal Patriot
51. Lindsey Roberts	Wilkes County Health Department
52. Lisa Burguss	Wilkes County Health Department
53. David Willard	App Health Care
54. Jackie Johnson	Wilkes County Health Department
55. Lori Parsons	NCCN
56. Christyn Grant	Daymark
57. Zack Shepherd	Vaya Health
58. Candace Dixon	Wake Forest Baptist Health
59. Angela Carey	Aetna Medicaid
60. April Marr	Wilkes County Schools
61. Lizz Mastrella	Wilkes County Schools
62. Maria Curtis	Wilkes County Schools
63. Rebekah Hayes	Wilkes County Schools
64. Crystal Call	Wilkes County Schools
65. Kimberly Snider	Wilkes County Schools
66. Donna Hill	Project Lazarus
67. Bob Urness	Town of Wilkesboro
68. Jane Casarez	Project Lazarus
69. Jessica Rominger	Project Lazarus
70. Erin Cashwell	Wilkes County Health Department
71. Marie Parker	Wilkes County Health Department
72. Junior Goforth	WMCF
73. Martha S. Nichols	WMCF
74. Deana Billings	Wilkes Public Health Dental Clinic
75. Norma Bouchard	Parent to Parent FSN
76. Judy Vaughn	General public
77. Robert L. Johnson	Mayor of North Wilkesboro
78. Sosandra Cardwell	SAFE, Inc.

79. Crystal Boone	SAFE, Inc
80. Gretchen Bardski	WCOG
81. Tomica Horton	Jodi Province Counseling
82. Laurie Brintle-Jarvis	WCC
83. Caroline Whitson	YMCA
84. Heather Barnes	YMCA
85. Anne Farmer	General Public
86. Ramona Curtis	unclear
87. Jenny Richardson	YMCA
88. Tammy Love	WFBH Wilkes Medical Center
89. Callie McCraw	Wilkes CC
90. Wendy Nichols	Wilkes CC
91. Billy Woods	Wilkes CC
92. Tony Higgins	Retired